THE CULTIVATOR.

TO IMPROVE THE SOIL AND THE MIND.

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Practical Husbandry.

Farming in Otsego County.

In the month of February last, we made an excursion through a portion of Otsego county. This district is comparatively new as to agriculture. Until after the Revolutionary war, it was only a hunting ground for the Indians, and its settlement has been chiefly commenced within the present century. Many of the first settlers manifested a strong interest in the improvement of agriculture, and to their influence is to be attributed, in a considerable degree, the rapid advance which has been made, and the favorable position which the section sustains in this respect.

We learn from a "History of Agricultural Societies," published by the late ELKANAH WATSON, Esq., in 1820, that a society was organized in this county as early as 1817; and this, indeed, appears to have been the first county agricultural society in the state. Mr. WATSON, who was present, and delivered an address on that occasion, spoke of Otsego as having "long stood pre-eminent in this state for its cattle and cheese." In the same address, Mr. WATSON alluded to the favorable results which this new organization was destined to produce over the whole country. He said—"A strong presentiment lies on my mind, that the time is at hand, when, either through the national or state patronage, every county in this state—I will add, in the United States—will follow your example." The great increase of agricultural societies since that day, has singularly verified this prediction.

The second exhibition of the Otsego County Society, was held at Cooperstown, in 1818. Mr. WATSON was iagan present, accompanied by DE WITT CLINTON, then governor of the state, the late Hon. STEPHEN VAN RENSSELAER, and several other distinguished gentlemen. The stimulus resulting from these visits, was productive of highly beneficial effects, which have been continued even to the present time.

Our observations, which were confined principally to the southwesterly portion of the county, could not, from the nature of the season, be of a very definite character, in reference to the cultivation of the soil. The general aspect of the country, its divisions into fields and woodlands; the external appearance of the farms, as to buildings, fences, &c., and the character of the live-stock, comprised about all that could be seen to advantage. This neighborhood has for several years been noted for its fine cattle and sheep, of various breeds; and we were informed by many persons, that agriculture, in all departments, has been greatly improved here within the last twenty years. But the raising of horses, cattle and sheep, and the products of the dairy, are still, as formerly, the chief staples. Wheat is produced to but a limited extent; Indian corn, oats, barley, and buckwheat, in considerable quantities; the yield of the latter grains being, probably, equal to the average of the state.

Besides the County Agricultural Society, which is located at Cooperstown, there has been for fifteen years, a society which has held annual exhibitions, generally at the village of Louisville, in the township of Butternuts, (now Morris.) Several hundred dollars are annually subscribed in this vicinity, including the neighboring township of Otego, which are paid in premiums on domestic animals, crops, dairy products, and manufactures. The society, though sustained entirely by individual aid, (receiving no funds from the state, as do county societies,) has kept up its exhibitions with much spirit, and with decided advantage to the farming interest.

From the acquaintance which our visit enabled us to form with the farmers of this section, we were favorably impressed with their intelligence and their desire for improvement. Many of them manifest an acquaintance with the principles of agriculture, and a determination to avail themselves of all practical information on the subject, through the medium of books, agricultural periodicals, and all other sources. They have lately organised a club for the discussion of questions connected with husbandry—the members meeting weekly for that purpose.

Much of the improvement of the live-stock of this neighborhood, is doubtless attributable to the exertions of a few individuals, who have devoted themselves considerably to that branch of farming. Prominent among these individuals, is FRANCIS ROTCH, Esq., a gentleman who has resided here for the last twenty-three years. On his first coming into this part of the country, he spared neither pains nor expense in procuring and introducing the best Short-horn cattle, South Down and Merino sheep, &c. He has also been instrumental in introducing the Devon breed of cattle, several specimens of which he imported from England; and has introduced, at various times, improved breeds of swine, poultry, &c. The opportunity of acquiring this stock has always been offered to the public on liberal terms; and the re-

sult has been an improvement which is too obvious to be doubted.

But the benefit of Mr. R.'s example and exertions has not been confined to the improvement of domestic animals. He purchased a farm which was considered utterly worn out. This he has completely renovated, and by means, chiefly, which have been adopted by others in the vicinity, with great advantage. The soil of the farm, as well as of the section generally, is derived from the decomposition of a silicious slate. Large quantities of leached ashes had accumulated from potash manufactories in the neighborhood,—their value as a fertilizer being so little regarded, that they were not deemed worth carrying away. Mr. R. commenced using ashes on his farm extensively, and with striking benefits from the outset. In the course of a few years, he applied no less than two thousand loads, of twenty-five bushels to the load—those of the first year having been obtained gratis, the second at twelve and a half cents a load, and the last at seventy-five cents a load—the latter being the price at which they now remain, and are so much sought after, that they are carted, in many instances, six or seven miles—the farmer being satisfied that even at this cost, they are applied with profit. By the aid of ashes, with strict economy in the saving and application of the manures of the farm, Mr. R. bas brought his land to a highly productive state. It is chiefly devoted to grass, and produces an average of two and a half tons of hay to the acre. For several years, he has not found it necessary to purchase manures,—those made on the premises being sufficient to maintain the fertility of the farm.

Mr. R. has now relinquished the management of the home farm and the stock, to his son, Mr. F. M. ROTCH. His Short-horns were in fine condition, and many of them are among the very best specimens of the breed. His South-Down sheep, about sixty in number, denote high breeding, and in uniformity and general symmetry, they are seldom equalled. The flock has, in fact, constituted the source from which many animals have been drawn for the improvement of other flocks of this breed. He has a small flock of the French Merinos, several of which were imported. They are of very large size, and quite even in the character of their wool, of which they bear a very large quantity.

We must not omit to mention Mr. R.'s Dorking fowls, of which he has a very choice stock, derived from Messrs. BAKER of London, and other celebrated English *fanciers*. He has, also, a curious variety of rabbits, said to have been originally procured from Madagascar, but much improved in beauty and other qualities in England. In relation to these, he has obligingly furnished us with some remarks, which will be found on another page.

Devon cattle, as before remarked, have been bred in this vicinity, more or less, for several years. Those who have attended our State Fairs, will recollect the fine animals of this breed which Otsego has turned out, a good proportion of which generally stand high up in the list of successful competitors for premiums. Among the breeders of this stock, Mr. R. H. VAN RENSSELAER deserves particular mention. He has some of the finest Devons in the country. A part of his herd was derived from the importation of Mr. ROTCH, before mentioned. To these he added, in 1849, the noted bull "Major," purchased of Mr. GAPPER, of Canada, (see Cultivator for 1850, pp. 80, 81,) and during the past season has imported two very superior heifers, from the celebrated herd of Mr. GEORGE TURNER, near Exeter, England. One of these heifers, which is three years old this spring, has produced a fine heifer calf—the sire, Mr. Turner's bull which received the first prize of the Royal Agricultural Society, in the Devon class, at the show of 1850. The other heifer is two years old this spring, and has not yet bred. Though both are fine, we consider the younger, one of the most perfect animals we have ever seen. With such stock as Mr. V. R. has now in his possession, he can hardly fail to breed Devons that will be creditable to himself, and greatly beneficial to the country.

Mr. V. R. has one of the best arranged poultry-yards we have seen, (of which we hope to receive a description)—well stocked with Dorkings of Mr. ROTCH'S stock, with a handsome assortment of the Polish or Top-knot fowls, turkeys, &c. He has, also, a rabbitry, in which he breeds the variety of rabbits introduced by Mr. R.

Mr. H. N. WASHBON has been for several years known as a successful prize-taker for Devons. He has sold many, which have been taken to various parts of the country. Much of his breeding stock was obtained from Mr. GEORGE PATTERSON, of Baltimore, well known as a breeder of fine Devons. Mr. W. has several choice animals of this stock, though from being rather short of keep, some of them are not in condition, to appear to the best advantage.

Mr. JAMES BLACKMAN has several good full blood Devons, some of which are of the Patterson stock. Mr. BAKER, near New-Berlin, Chenango county, has quite a large herd, among which are some very good Devons. Other farmers do not confine themselves to full bloods of any breed, but keep Short-horns and Devons, and various grades of these with the common stock—frequently producing, however, very good animals, especially oxen, for which the neighborhood sustains a well-deserved reputation. Among these may be mentioned Mr. R. H. FRANCHOT, Mr. MORRIS, (son of the late Gen. M.,) Mr. GILLET, Messrs. N. B. and F. A. PEARSALL, and Messrs. PETER, JAMES, L. S., DAVID, and STEPHEN BUNDY. Messrs. B. constitute a *part* of what is called the "Bundy neighborhood," in Otego—a neighborhood which has long been noted for good farming, and fine working oxen. Messrs. B. have now several yoke which amply sustain their credit in this respect, and which in regard to beauty, strength, discipline, and all the qualities which constitute value in a working ox, are equal to any we have ever seen. The condition of many of the farms here, is somewhat rough and stony, and the labor on them is performed in a great degree by oxen. The best farmers are very particular in the breeding and training of this kind of stock, preferring those which, united to good constitution and substance, have a quick sprightly walk. The result is, that even at the plow, many of these oxen are not inferior in speed to the best horses, and their owners assured us that they were willing to risk any fair competition in this business, for a day or a week, or any longer time.

These oxen are generally of mixed blood, though all

partake more or less of the Devon; most of them are half; occasionally some are more. The cows which produce them are frequently mixed with Short-horn blood; but some of the best we saw, were produced by cows which had a dash of the Bakewell Long-horn, derived from some animals of this breed which were imported several years since by the late Mr. ADCOCK, of Gilbertsville. We did not learn that any full blood Devons had yet been tried for work in this section—the demand for males rendering them too valuable for this purpose. Whether the Devons unmixed, will have sufficient weight for the most valuable oxen, remains, therefore, to be proved. It is proper to remark, however, that their size has latterly been much increased in England, and we can discover no reason why, with proper attention in selecting, breeding, and rearing, the requisite size may not be attained here, and that, too, without any sacrifice of the other valuable qualities of the breed.

Mr. DAVID BUNDY has a flock of about sixty long-wooled sheep. They are descended from the Leicesters imported by the same Mr. ADCOCK who imported the Bakewell cattle. They appear to be a valuable stock, and many of Mr. B.'s are prime sheep.

DAIRYING.—Otsego county produces large quantities of butter and cheese. We had not the opportunity of visiting many of the farms devoted specially to dairying, but obtained some facts in reference to a few.

Mr. PETER BUNDY, Otego, states that he kept ten cows in 1850—three of them were two-year-old heifers. They "came in" as follows: 1st and 2nd, March 25th; 3d, April 10th; 4th, April 14th; 5th and 6th, April 19th; 7th, May 11th; 8th, May 12th; 9th and 10th, May 19th. The whole amount of butter made, was 1720 lbs. Made cheese 19 days—462 lbs.—weighed from the press. Mr. B. says, "Allowing three two-year-old heifers equal to two cows, the dairy would stand at nine cows—allow 2½ lbs. of cheese equal to one pound of butter, and the account will stand at 211 lbs. 10 oz. per cow, besides a liberal use of milk and cream in a family of seven persons."

Mr. RENSSELAER DAY, Otego, states that he kept eleven cows in 1850, the income of which was as follows:

Sold 1633 lbs. butter for,.....	$249 81
Made 325 lbs. cheese, worth 7c.,.....	22 75
Sold four calves in August for,.....	31 00
Raised three calves, for which he was offered, in December,.....	36 00
Total,.....	$339 61

Equal to $30.87 per cow.

Mr. WALTER L. MOORE, Butternuts, keeps usually from seventeen to twenty cows, the milk of which is used chiefly for cheese, but butter is made in the fall. The average weight of cheese to each cow, for the season, (making the customary allowance of one pound of butter being equal to two and a-half pounds of cheese,) is 400 lbs. It is of superior quality, and a large portion of it is sold at the close of the season at nine cents per pound. Some two-year-old cheese from this dairy, which we tasted, was scarcely inferior to the best we find anywhere.

"Industry and economy will get rich, while sagacity and intrigue are laying their plans."

Memoir of Colonel Timothy Pickering.

(*Concluded from p. 102.*)

It is of Col. PICKERING *as a farmer*, that we feel it to be our privilege to speak. This we should not have done, had not our solicitations to others, better qualified to say what ought to be said, been ineffectual.

In 1818, an association of the farmers of Essex was formed, under the name of the "Essex County Agricultural society," over which he was invited to preside. It was done in accordance with the offer of the state for the encouragement of such societies. There is good reason to believe that Col. P. was not ignorant of the movement that prompted these offers. Whatever may have been the origin, it met his entire approbation and active co-operation. He continued thus to preside for a period of *ten years*, until the autumn of 1828, when, he said he felt it to be his duty to withdraw, lest he should be thought to be *in his dotage*—an idea that never occurred to any one but himself. We know not how to express our opinion of the efforts of Col. PICKERING, in connection with this society, better than in the language of the address, in 1844. Says the speaker—"I have ever esteemed the hints and observations that fell from Col. PICKERING at our meetings, as among the most valuable lessons ever taught to the farmers of Essex. At an age when most men think their labors should be ended, he was in his prime, in handling the plow and instituting new experiments. He was not ashamed to soil his hands or his clothes, in the labors of the field. In whatever he engaged, he took the part of the working man. When he spoke, it was not to display his own acquirements, but to instruct his hearers. While others were admiring his superior wisdom, he, himself, appeared to be the only one not conscious of it. Like Franklin, he always had some illustrations that would not fail to make a lasting impression."

During his presidency, (as it was our privilege to be his secretary,) we can bear testimony that he was scrupulously attentive to all the meetings and interests of the trustees, and of the society; always ready to illustrate by precept and example, his accumulated experience. He loved farming for its own sake, and for the good of his fellow men. He was never happier than when he commanded the listening attention of a group of practical farmers, catching the words of wisdom from his lips,—spoken, as it were, from the inspiration of the genius of sound philosophy. We recollect many instances, when, upon questions incidentally arising, he would go on and talk "like a book," for fifteen or twenty minutes, to the admiration of all around. He had read most that was then valuable of English, Scotch, and Flemish husbandry; his memory was uncommonly retentive; and what was of most value, he thought closely and carefully, upon what he saw and read. He was never satisfied to take any man's *say so*, unless he could be made to understand the reason for saying it.

It may be interesting to notice some of the topics, on which he was accustomed to dwell with special emphasis, connected with the advancement of husbandry in New England. Among these, the improvement of our native breed of neat cattle is entitled to the first place. "I have long entertained," said he, "and repeatedly ex-

pressed the opinion, that a fine breed of cattle, peculiarly adapted to the combined objects of the farmers of New England, might be most readily and extensively obtained, by the spirited exertions of substantial farmers to improve our native breed." In support of this opinion, he quoted the late Mr. Lowell of Roxbury, one of the most intelligent farmers in Massachusetts, who said, "Possessing as we unquestionably do, the materials among our own stock, of improving our breeds, by careful selection, we should follow the example of Bakewell and other British farmers, who in fifty years, have raised the stock of Great Britain to a state of perfection little short of what it is supposed they can ever reach." And again, "more is to be expected from the excited attention to the improvement of our own stock, than from importation." Col. Pickering further remarks, with a liberality of opinion, characteristic of himself, "Such improvements of our native cattle, so important to our farmers in general, will also be interesting to those who are possessed of fine imported cattle; for if the latter on full trial, shall be found to be really of greatly superior excellence, improved individuals of our native breed will furnish better subjects for coupling with them; and enable the owners of the imported animals more expeditiously to improve and increase a superior stock,—whether for their own use, or for sale."

A highly interesting disscussion on this subject, was carried on between Col. Powell, of Philadelphia, and Col. Pickering, (see N. E. Farmer for year 1825) in which Col. Powell admits, that the short-horns, so called, are too large for the ordinary purposes of our farms. To whom, Col. Pickering replies, "We now have, in what are denominated our native cattle, a breed exactly adapted to our service, and means of keeping them; and may we not, with spirit and resolution, engage at once, in the laudable and profitable enterprise, of improving this breed, by a careful selection of the best males and females, and thus, in a few generations, raise them, not to gigantic size, but to a high pitch of perfection, for the primary objects of our farmers,—*labor, beef, and rich milk for butter and cheese.*"

The constituents of soils, and the manures applicable to their improvement, were also, with him, favorite themes for discussion. His remarks were practical, not theoretical. He would go on, with great minuteness, stating all the facts and circumstances connected with any experiment, explaining as he went, but never was in haste to draw general conclusions—fully impressed with the truth of the proverb—"one swallow does not make it summer."

The implements of husbandry, too, shared a portion of his attention. From the noble plow, that is at the foundation of all culture, to the simple brush* for the destruction of the meanest insect—none were too large to be above his comprehension; none too small to be beneath his notice. Scarcely a subject can be mentioned, connected with the culture of the soil, that has not been noticed by him. Without presuming to be a writer and maker of books,—he was always thinking—always communicating his thoughts in such a manner as to be useful. In so doing, he seemed to forget himself, and to be moved by a desire to do good. His life was a practical illustration of disinterested benevolence. We remember to have heard from him, addresses to the Essex Society in 1818, 1820, and 1828,* and to the Massachusetts Society in 1823, all of which were published among the Transactions of those years.

There is scarcely a page of the publications of the Essex Society, during his presidency, that is not illuminated by his reflections. If this society has gained any reputation, or been instrumental of any good, it is mainly to be attributed to the impulse he gave it, and to the spirit of inquiry awakened by his advice and exertions. To attempt to condense his remarks, would be but to mar their symmetry, and impair their force. His discriminating observation and comprehensive reflection, left nothing to be added; his classic discipline and fine taste, admit of no retrenchment. We cannot so well express what is proper to be said of his productions, as in the following condensed paragraph of Mr. Fessenden, the learned editor of the N. E. Farmer, when speaking of the address to the Mass. Soc., vol. 1, p. 222. "Although the subjects of the address are not only important, but many of them abstruse, forming what may be styled the metaphysics of chemistry and physiology; still there appears to be nothing in Mr. PICKERING's observations, which is hard to be understood. Volumes after volumes have been written on the food of plants; the elements, or chemical constituents of vegetables; the mode of operation, the manner of applying, and the benefits resulting from the application of lime; the different kinds of earth necessary to constitute fertile soils; the burning of clay for manure; the obstacles which prejudice, and a pertinacious adherence to old usages, oppose to improvements in agriculture; and the best means of overcoming such obstacles; the best methods of accumulating and applying manure, &c.,&c.–but we do not remember ever to have seen so many and so important topics comprehended in even more than double the pages containing Mr. PICKERING's remarks on those subjects. We never read a paper, which, in our opinion, exhibits so much *useful matter* in so *short a compass.*" "We think it should be a subject of congratulation with every friend to his country, that an eminent statesman, and revolutionary patriot, should be induced to exert his influence, and devote his talents to promote the interests of agriculture, the most noble of the sciences, as well as the most useful of the arts." If further testimony is demanded, let the pages themselves be consulted; and

* Col. Pickering's brush for Caterpillars. See his Letter in N. E. Farmer, April 26, 1823, vol. 1, p. 308.

"This brush is made of hog's bristles, introduced between two stiff wires, closely twisted; and being convenient in cleaning the inside of bottles, is probably familiarly known wherever liquors are bottled. For the information of others, I will mention that a piece of wire full one-tenth of an inch in diameter, about three feet long, doubled, and leaving a small loop in the middle, is closely twisted for the length of eight or ten inches from the loop; and then the bristles, being introduced between the remainder of the branches of the wire, and these closely twisted upon them, the bristles are immovably fixed, and thus form a cylindrical brush, about six inches long and two and a half in diameter. To fasten this conveniently to a pole, with a small gouge I made a groove about seven or eight inches long, at the small end of the pole, in which nearly all the handle of the brush was laid, and bound firmly on with three strings."

* In Sept. 1828, Col. Pickering met the trustees of the Essex Society for the last time. This was shortly after the death of his beloved companion, with whom he had lived for sixty years.

whoso shall fail to be convinced, will thereby demonstrate his inability to comprehend.

If we rightly remember, as early as 1790-5, was the attention of JEFFERSON and PICKERING directed to the formation of the mould-board of the plow, on scientific principles. They thought much and compared their views. Which originated most improvement we will not presume to say. Their object was not so much to secure patents, as to secure improvements. The result was the publication of a new form of structure, with an explanation of the principle of operation. In 1803, Mr. Smith of Pennsylvania, substituted the *cast-iron* for the *wooden mould-board*. Since then a very great variety of modifications and combinations, (too numerous to mention,) some founded on *principles tangible*, and others on *principles imaginary*, have been brought forward. But if we do not mistake, nearly all that is valuable in these improvements, was embraced in the contemplations of these original minds. By so doing, they literally converted the weapons they had so successfully wielded, into plowshares—benefitting the world more than any victories at arms.

Col. PICKERING's mind was so disciplined to accuracy of thought and logical conclusions, that he could not endure with patience, the ill-founded notions and whims, that frequently have a pervading influence on many minds in the community. Illustrative of this, we remember an incident that occurred at one of the meetings of the board of trustees, over which he presided. One of the members of the board, a practical farmer, possessed of more *acres* than *ideas*, had been discoursing, with more ardor than discretion, *upon the proper age of the moon, in which bushes should be mown, that they might not sprout again;* and had specified a certain day of the *first* or *last* quarter, (we do not remember which,) in the month of August, *provided* the moon should be in the right sign, with her horns in right position, &c., &c. The speaker having triumphantly put forth his theory, confirmed by observations for a time the memory of man runneth not to the contrary, calmly waited for others to say amen! "My friends," says the Colonel, "I hope never again to hear from you, or any other member of this board anything, whatever, of the influence of the moon, upon any of the operations in agriculture. I should as soon think of calling in the aid of '*the Man in the Moon*,' to assist in the labors of the field—be they chopping, plowing, sowing, mowing, hoeing, harvesting, or whatever they may be,—as to expect any favorable or unfavorable influences, from the *age* or *position of the moon*. Let me tell you, *that old man*, pictured in the Farmer's Almanac, surrounded with the twelve signs, and as many jaw cracking names, and pierced by as many arrows, has done more harm than all the meteorological prognostications of the most weather-wise calculators, have ever done good. I want such rules only, for labor, in the operations on the farm, as are supported by reason, and are in harmony with common sense." It is unnecessary to say that the gentleman's argument was never again urged in the presence of the president.

He was remarkable for regular and temperate habits—no man more so. This, not in conformity with the fashion or custom of the day—but because of his thorough belief in the utility of such habits. We remember to have heard him say, that he had taken medicine but once, for more than *forty years*. This, he said, was on the day preceding the battle at Yorktown (we think,) when having been much exposed in attending to the duties of his department, he was severely attacked with a feverish affection. A seasonable prescription from an intelligent Scotch physician afforded relief. Ordinarily, abstinence was his regulator of bodily infirmities. Nevertheless, his good sense taught him, that there are exceptions to all general rules;—and therefore he consented to be advised, when he could not do without the advise. "Whenever," said he, "I find my system in the least disordered, I refrain from crowding the stomach, make such external applications to the skin, as tend to correct the inconvenience. In this way, have I kept my system free of all poisonous annoyances." *Abstinence* from everything prejudicial, either to mind or body, was with him a cardinal virtue. On this principle he avoided the *use of tobacco*, and discouraged its use in others.

In the domestic relations of life, were the qualities of his nature most fully developed. Blessed with a companion entirely worthy of him,—chosen in youth, when heart unites with heart by ties irrevocable,—and with eight sons and two charming twin daughters, his home was ever the abode of the best affections. Stern as he might be, in the rougher paths of the world, when mingling with his family, he was gentle and conciliatory almost to a fault. No man loved his family better,—no man ever found his love more cordially reciprocated.

Col. PICKERING was truly a religious man. At all times he seemed to be fully impressed with that most salutary of admonitions—"Thou God seest me." His religion was of that class that moves the *inner man*—and not that which exhausts itself in vain professions. He was strictly exemplary in his observance of all the customs and ordinances of the class of christians with whom it was his happiness to associate; scrupulously careful of avoiding offence to those who conscientiously entertained different views; confident and fully persuaded in his own belief, and ever ready to give a reason for the faith that was in him; still charitable enough to view with favor, all, of whatever name or sect they might be, who honestly and intelligently believed, and lived accordingly. He never pretended to have any religion *to speak of*. Nevertheless, none could have witnessed his venerable form in the church, (where he constantly attended,) at the table of the Lord, without being fully impressed with the text, "Behold an Israelite indeed, in whom there is no guile."

It may be interesting to those who never saw Col. P. to be informed of his personal appearance. This was peculiarly striking. It brought to mind distinctly the notion formed of the old Roman character. In this he was not unlike Gen. JACKSON, for whom he entertained a high respect. He was tall, (six feet at least,) athletic, erect, square shouldered, full in the breast, muscular, and his entire movement marked the perfect man. But above all, his high forehead and prominent brow, with the piercing eye beneath, and the general expression of intelligence about the head, never failed to leave a conviction on the mind, of his intellectual superiority..

This was frequently noticed in his intercourse with the

Indians, at Buffalo and other places in the west, where he was frequently called as Commissioner, to negotiate treaties and adjust difficulties. These rude sons of the forest are not slow in discriminating the traits of character of those with whom they come in contact; and if tradition is to be credited, his influence with them was almost without limit. He had studied human nature in the original—and knew full well how to fit the words to the occasion.

In whatever company he might be, he would not long pass unnoticed. Although there was a sternness in his aspect and manner, still he was entirely free from assumption of superiority—especially when in company with the young, or those who had merit enough in themselves rightly to appreciate his character. But we shall never forget the contemptuous frown with which he looked upon conceited coxcombs, and superficial upstarts. Shuffling and meanness of any kind, were never favored by him. His own honor would not allow him to wink at anything dishonorable. The Rev. Mr. Uplam said of him, in a discourse, the Sabbath after his decease—"The feelings of pride, jealousy and suspicion, seem never to have entered his heart. He looked not on the most humble as his inferiors; and never abased himself by flattering the most exalted."

One of the last occasions on which Col. Pickering appeared before the public, was the 4th of July, 1823, at the celebration in Salem; when he took occasion to preface the reading of the Declaration of Independance, with a statement of facts, within his own knowledge, relating to this document, of much interest. We can only say, that he aimed to do full justice to those co-patriots, in the times that "tried men's souls"—ADAMS and JEFFERSON—with whom he had been supposed to be in some measure at variance—politically speaking at least,—and with the former, not without cause—thereby showing to the world that he was incapable of cherishing feelings of enmity.

Some have charged him with being under the influence of *strong prejudices*; but those who knew him best, know that he was neither obstinate nor prejudiced. He was a man who thought for himself, and adhered with firmness to opinions deliberately formed. But still he was open to conviction, and ever ready to yield as soon as convinced. But so logical were his thoughts, and so deliberate his conclusions, that he seldom had occasion to yield. Therefore superficial observers called him obstinate.

In April, 1775, when the sons of liberty were first called to arms, at Salem, Col PICKERING was found ready to go ahead as their file-leader. It is not a little remarkable that in April, 1828, forty-three years afterwards, when the friends of freedom were again summoned, with their contributions in behalf of the oppressed Greeks, he should be found to occupy the same conspicuous position. The address, then prepared by him, after a most graphic description of the truly pitiable condition of their sufferings; and of the noble exertions of those genuine philanthrophists, who had periled their lives and fortunes for their relief, closes with these remarkable words, worthy of their own Demosthenes:

"But the misery of the Grecian women and children, and of men enfeebled by age remains. Their relief is the object of this statement. Eloquence is not necessary to persuade. The facts speak to the heart, and it is confidently believed that they will not speak in vain." Imagine the venerable old man, with his intense look, and energetic movement, uttering these words, and even the walls of the temple would echo, Amen.

It must be particularly gratifying to every friend of improvement in agriculture to know, as it is in my power to assure them, that the last public act of Col. P., and the last use to which his pen was employed, was the preparation of a memorial to the Legislature of Massachusetts, for the renewal of the bounty of the State for the encouragement of Agriculture. Thus he lived and thus he died, having passed more than sixty years in the exercise of the highest philanthrophy.

His memory should be held in honor by all who depend upon the fruits of the earth for their sustenance and support. He who had served his country with fidelity and ability, in the field and in the cabinet, retired to his farm, as did his Roman prototype, in the midst of life, before his eye was dim or his strength impaired, and devoted his matured energies to the cultivation of the soil. When such minds can thus find full employment, who will dare say that agriculture is an humiliating pursuit? JOHN W. PROCTOR.

Progress of Agriculture.

Theories of Agriculture---No. 4.

Considerable advance has of late been made in the *philosophy* of agriculture. Until within a few years, the practice of husbandry may be said to have rested entirely on empirical rules. The subject has now been greatly illustrated by scientific investigation. In vegetable physiology, we have been much aided by chemistry, by which the functions of plants and many of the phenomena connected with their growth and decay have been explained. Analysis has shown the composition of plants and soils—it has shown that each species of plant has its specific food—that the elements which support plants are not uniform in the soil, but that each variety of soil varies in this respect. Thus we discover the principles from which are deduced the necessity of the application of manures, and the expediency of a rotation of crops.

But it is not alone by explaining acknowledged facts, that chemistry has thrown light upon agriculture; it has solved questions, by which practice has been, in some instances, corrected. We are aware that too much has been claimed for chemistry—that some of its enthusiastic advocates have assumed much which would not stand the test of experience, and which is equally at variance with correct science; but this is a result naturally incident to all investigations in their first stages, or until their fundamental priniciples are thoroughly established.

On the other hand, an unreasonable extreme has been run into by the opponents of the application of chemistry to agriculture. For example, an editor of a paper whose leading subject is agriculture, declares that "for a farmer to consult a chemist to aid him in his field, is more absurd than for a smith to look to the wind to know

when to temper his tools."* The same editor informs us that nine years have elapsed since he first "invited the public to patronize a paper of a character wholly different from any that had been published since the art of printing was discovered," and that he has "labored hard to please and to instruct." As specimens of these labors to "instruct" farmers, we may take the above remarks, and also his assertion put forth through the same medium, that the *shape* of the plow has undergone no improvement for the last thirty years—that "the only gain in draft is owing to the smooth and hard surface of the plow—land-side and furrow-side; for plows turn the ground over no better now than they did thirty years ago."

Now it seems to us that every farmer whose vision is not blinded by prejudice or ignorance, may have discovered various instances in which chemistry has been of practical utility to agriculture—that it has developed valuable truths which never could have been elicited by practical observation alone. Without the aid of chemistry, it could not have been discovered that phosphate of lime formed one of the constituents of bones, of milk, and the cereal grains. Milch cows when confined to pastures which have long been devoted this description of stock, are liable to a weakness of their frames called the "bone-disease," and their milk is sometimes destitute of a quality essential in the manufacture of cheese. Chemistry has ascertained the cause of those defects, and pointed out a remedy; it has shown that the soil becomes exhausted of its phosphate of lime, so that the herbage does not afford the animals the requisite supply of this important element; and as the same science had shown that bones were composed chiefly of the substance wanting, it only became necessary to apply bones as manure, to remedy the defect of the soil and heal the malady of the animals.

Chemistry has been of practical utility by showing in what consists the fertility of soils, what constitutes the fertilising nature of manures, and what is the specific action of various substances. In this way it has been the means of correcting erroneous practice in compounding manures. Formerly, farmers, without any knowledge of chemistry, were in the habit of mixing all kinds of manure in a compost, without regard to their action when thus combined—apparently on the principle that "too many good things cannot be put together." Lime was often mixed with animal manures, and as chemistry has shown, to the loss of one of the most valuable properties—ammonia. Hence, those who understand the action of lime, have discountenanced its use in manures. Thus, Prof. JOHNSTON says guano should not be mixed with lime,—"because the lime sets free the ammonia contained in the guano, and causes it to escape into the air." He says, also, "quick-lime will in the same way drive off the ammonia contained in liquid manure, and in horse, or farm-yard dung." Another writer observes—

"Lime is frequently misapplied by being added to farm-yard manure, animal remains, and other substances which are rich in ammonia. As it encourages the decomposition of the structure of animal and vegetable substances, it has been used for this purpose. This is, however, an erroneous practice, as it affects its object at the expense of the most valuable fertilising element, which it dissipates. But practice does not require the aid of lime in the conversion of the remains of animal bodies, of vegetable refuse, and many of the occasional waste substances which contain ammonia, into compost manure. They rot spontaneously with sufficient rapidity."*

The injurious effect of mixing lime with animal manure, may be explained as follows: Lime-stone contains nearly half its weight of carbonic acid. In the process of burning, the carbonic acid is driven off; but the lime has a constant tendency to return to its original condition, by the re-absorption of the property it had lost. Animal manure contains this property—carbonic acid—combined with ammonia. Thus, when lime and manure are mixed, the strong attraction which the lime has for the carbonic acid, causes the latter to separate from the ammonia, and unite with the lime, liberating the ammonia, and allowing in to pass into the air.

Chemistry has also shown that sulphate of lime, (gypsum,) has an opposite effect from common lime, when mixed with manures. The sulphuric acid of the gypsum unites with the ammonia, (which is an alkali,) and prevents its escape. Thus, where caustic lime would produce a loss of the most valuable property of manure, sulphate of lime would save it.

The observance of the principles which have been developed by chemistry, merely in relation to the action of lime and gypsum, as above noticed, might have saved to farmers thousands of dollars, which, for want of this knowledge, have been lost. In this connection it may be mentioned, also, that the science has been of great utility in ascertaining the intrinsic value of what may be called *commercial* manures—as guano, poudrette, &c. It is well known that great deception has been practiced in regard to these articles. Chemical analysis has shown their adulteration, and established their true value; thus enabling farmers to avoid imposition.

Again, chemistry has greatly illustrated and explained the advantages of draining land. True, it could be seen without a knowledge of chemistry, that crops grew better for having the surplus water turned away from their roots; but this science has shown that the presence of an undue quantity of water in the soil, causes the formation of noxious compounds. It prevents the decomposition of vegetable substances, in consequence of which acids are generated, sometimes with iron as a base, which are very pejudicial to plants—the soil becomes *sour*.

Chemistry has detected these acids, shown their nature, how they were formed, how their formation may be prevented, and how they may be destroyed. It shows that draining produces a chemical change in the soil; that the water being withdrawn, and the soil exposed to the action of the air, these injurious acids are dissipated, and the food of plants, which had before remained latent, becomes soluble and available. This is unquestionably one of the most beneficial results of drainage, and yet it is one which chemistry alone could explain.

FEEDING CATTLE.—Cattle standing in cold muddy yards, exposed to the weather, consume about twice as much as those in sheltered stables kept clean and littered, and free from the accumulations of manure.

* *Massachusetts Plowman*, Oct. 5, 1850.

* Morton's Encyclopedia of Agriculture

Ashes of Anthracite and Bituminous Coal.

ANALYTICAL LABORATORY, YALE COLLEGE,
New-Haven, Conn., Feb. 25, 1851.

MESSRS. EDITORS—During the past year, several of the students in this laboratory have, at my suggestion, been examining the ashes of our ordinary coals, with a view to the determination of their practical value for agricultural purposes. The analyses now completed are so accurate and so minute, that we are for the first time able to speak positively with regard to coal ashes, and to point out the differences which exist between them and other varieties of ashes. The researches of modern geology have shown that the beds from which at the present day we obtain the various forms of coal, consist chiefly of the remains of an ancient vegetation, which beyond all question, covered arge portions of the earth's surface at some period in the earlier history of the planet. This vegetation must have been dense and luxuriant beyond anything that occurs at the present day. Some of the many convulsions and internal *throes* which have altered the position of rocks, upheaved hills and mountains, opened deep valleys, brought up dry land from the midst of the sea, and sunk whole continents beneath its surface again, have overwhelmed this vegetation, and heaped materials above it, which have gradually hardened into rock. Stratum after stratum has thus accumulated, new layers of vegetable growth have even been deposited above the first, by a subsequent growth and subsequent burial. The vegetable masses thus crushed under the superincumbent pressure of perhaps a thousand feet of rock, and exposed to heat at the same time, changed into what we now call coal. The product was either anthracite or bituminous coal, according to the different circumstances of formation, and the different degrees of heat to which the beds were exposed. In the immediate vein of the coal, all traces of vegetable structure are commonly lost, but in the roof of the mine are frequently to be found perfectly preserved stems and leaves, so perfect that the botanical character of the plant can be clearly decided. We are thus able to see, and to feel, on the surface and in the texture of solid rock brought sometimes from a depth of 1600 feet, the forms of that superb vegetation which clothed parts of our globe for centuries, or I may say long ages, before man became its inhabitant.

The formation of these vast vegetable deposits seems to have been one of the means by which our all wise Creator prepared the world for our comfort and sustenance; when we have exhausted in our improvidence the vegetable growth of the surface, we find buried deep beneath all of our present disturbing causes, the organic structures of preceding periods of time, stored away in a form exactly adapted to our uses and wants.

The quantity of coal now consumed annually in civilised countries, may be counted by millions of tons, and is increasing in proportion with the spread of manufacturing, and the extension and augmentation of commerce. If we take any single bushel, or even a single ton of this coal, and burn it, the proportion which remains unconsumed is altogether trifling in comparison with the original bulk, and may seem almost unworthy of note; but when we come to count our tons by the thousand and hundred thousand, this subject of coal ashes begins to expand; and when we consider in this view the immense aggregate quantity which every year must afford, we see that the disposal of them must be a matter of much importance. If the thousands of loads that are annually wasted, contain even a small per centage of substances valuable to our crops, the preservation of these ashes becomes a question of great public interest. That they must contain something, is rendered almost certain when we first ascertain the fact that coal is of vegetable origin; the next point is to inquire how much there is that may be of value to our crops at the present day. It is with the view of deciding this question, at least with regard to some of the principal varieties of coal used in this country, that the analyses herewith given have been made.

The coal was ignited in an ordinary furnace, and the fire, when well kindled, was allowed to burn for nearly a whole day, before any ash was saved; the grate was then well raked out, the ash pit carefully cleared and swept, and the ashes that fell after this were collected. These precautions were taken to obviate all danger of mingling some of the ashes from the wood or charcoal employed in lighting the fire.

The samples for analysis were taken each from several pecks of ashes, obtained in this way.

The investigations with regard to the anthracite ash, were made by Mr. J. B. BUNCE of Hartford, Ct., and his results were the product of much careful labor, nearly all of the per centages being the mean of two closely concurring trials. He took fair samples of the ordinary white and red ash coals, and after burning in the way that I have described above, commenced his analyses. According to these, the following table shows the general composition of ash, from the common kinds of coal. That there is a variation in the ash yielded by coal from different veins, I am well aware, but still do not suppose that they are so marked as to materially injure the value of these analyses. I think that they probably approach quite nearly to a true representation of the character of anthracite ashes, and that they may be looked upon as very valuable for all practical purposes.

Each column of figures represents the constituents of 100 lbs. of ash.

	White Ash.	*Red Ash.*
Insoluble in acids,	88.68	85.65
Soluble silica,	.09	1.24
Alumina,	3.36	4.24
Iron,	4.03	5.83
Lime,	2.11	.16
Magnesia,	.19	2.01
Soda,	.22	.16
Potash,	.16	.11
Phosphoric acid,	.20	.27
Sulphuric acid,	.86	.43
Chlorine,	.09	.01
	99.99	100.11

These close and interesting analyses, afford us much light upon the constitution of coal ash, and enable the chemist who has studied these subjects, to say at once and with confidence that this ash is of some value as a manure, and should by all means be so applied in cases where it can be obtained cheaply.

Of the white ash 3.74 lbs. in 100 were soluble in water, and in the red ash 3.35. Besides this there was a farther

and larger portion soluble in acids, amounting in the white ash to 7.58 lbs. in 100, and in the red ash to 8.00 lbs. This latter class of substances cannot be considered as immediately available for the plant; but they will nevertheless gradually decompose and become soluble in the soil, thus affording a constant supply for a long period.

On referring to the table, we see that the greater part of each ash is insoluble in acids; this part consists chiefly of silica, alumina, and iron, and thus the great bulk of these ashes is inactive as a fertilizer; the remainder as we shall find, is of more importance. It will be noticed that the quantity of lime and magnesia taken together, amounts in each case to about 2¼ per cent. A portion of this lime was in combination with sulphuric acid, forming the common gypsum or plaster of Paris. The potash and soda were doubtless chiefly combined with the phosphoric acid and with the trifling quantity of chlorine. The very considerable per centage of soluble silica in the red ash, is worthy of attention as a curious fact.

In looking at the nature of these results, we may draw the general conclusion, that in the ash of anthracite coal, calling these fair specimens, we have in every 100 lbs. from 4 to 8 lbs. of valuable inorganic material, of a nature suitable for adding to any soil requiring manures. This is the perfectly pure ash; as we ordinarily find it there is mixed a greater or less proportion of ash from the wood or charcoal, used in kindling the fires. There is without doubt enough of this, in all ordinary cases, to add considerably to the richness of the ashes. But even if we take them in their pure state, as represented by the above analyses, we can see that they are well worth collecting, and that when applied in considerable quantity they may be expected to produce a decided effect. Indeed I have reports already as to the experience of several practical men, who have used them with much advantage.

An analysis of the ash from bituminous coal has just been completed in this laboratory, by Mr. G. W. Weyman of Pittsburgh, Pa. I do not insert it here, as it is to make its first appearance elsewhere. I may state however, in general terms, that this ash has about the same proportion of soluble substances as the anthracite ashes, but is superior to them in the per centage of lime, and of potash and soda, which it contains. It is therefore also of some importance.

When we consider, according to the above analyses and statements, that in every ton of coal ash that is wasted, we throw away from 100 to 150 lbs. of valuable materials, more valuable by far than an equal bulk of our ordinary manures, we perceive plainly that the farmers have not understood their true interest in letting this waste go on.

These ashes can be applied with advantage as a top dressing on grass land, or as mixed in a compost; they would also be of service when thrown into tanks and hollows, to absorb liquid manures.

Having thus called attention to this subject, it is to be hoped that our farmers who are able to obtain quantities of coal ash, will experiment on a large scale, and add practical to theoretical proofs of its value. Yours truly, John P. Norton.

DOMESTIC ECONOMY.

Treatment of Scarlet Fever.

The following communication comes from a gentleman, in whose judgment we have entire confidence:

Cleanse the stomach by a mild emetic. such as warm water or ipecac, (but not emetic tartar—it is too prostrating for this disease.)

When the fever rises, wash the patient all over in *warm* water, rendered a little slippery between the thumb and finger, by white ley or sal eratus. As frequent washings will be required,—that is, as often as the fever rises,—a *soft* towel should be used, and very gently, so as not to make the skin sore. On this account, when the skin is thoroughly cleansed, less ley should be used; and if the patient becomes sore, a little rich milk in the water, may be substituted. The feet should also be bathed in *warm* weak ley.

Such washings operate like a charm; and have never failed under my observations, to put out the fever as water puts out fire—for a time; but frequent repetitions will be necessary. A girl in my family, was washed ten times in one day; and a neighbor who was very weak before he came under my care, was washed twenty times in one night. The effect of these applications is most salutary and soothing. I have seen a child of five years old, who was taken from her bed crying and moaning, become playful as soon as she was washed. Another child, on whom the fever had risen high in the night,—was cooled off by the same process in a few minutes.

Warm water is more soothing and agreeable than *cold* water—which (latter) ought not to be applied in this disease, on account of its inducing re-action.

If the throat is much swelled, surround it with a cloth containing hops sprinkled with hot vinegar, and extending upwards above the nose, so that the patient may breathe the fumes. Volatile liniment,—made by turning *aqua ammonia* into sweet oil in a phial and shaking it well,—may also be applied round the throat, to irritate the skin as a rubefacient.

The *strength* of the patient should be most carefully preserved, hence neither *bleeding* nor *strong cathartics* are admissible. Some indeed, live through such improper treatment, because scarlet fever is one of the most variable diseases in regard to intensity: on some being very light, and on others very severe. The more urgent the case, the greater is the danger from bleeding. *The patient has not one drop of blood to spare*—no more than he would have in typhus; and strong purgatives are scarcely less improper. Only the mildest cathartics, like tamarinds, should be employed; but as elder-flower tea is both sudorific and aperient, in most cases no better medicine need be sought.*

After the fever has ceased, children often become pale and bloated; and a near neighbor lost a fine boy under the care of a regular physician, when the disease seemed over and past. In all cases however that have come to my knowledge, a dose of calomel when given, has roused them from that torpid state, and they have rapidly recovered.

Be very careful for many days after, not to take cold.

* Decoctions of slippery elm, catnep, or sage, may be used where elder-flowers are not to be had.

Stewed Apples.

Some people think stewed apples more wholesome and better flavored than preserves, and I am one of the number, though much depends on the kind of apple. The *Fall Pippin* for instance, though so excellent, is inferior in this respect; neither is the *Spitzenburgh* nor the *Bellflower*, equal to some others, for none of the three, are quite clear of an unpleasant tang. We have found two sorts however, which are very superior, and I will name them.

The *Red Astracan*, as one, ought to be better known, and every freeholder ought to have a tree near his door. It is of strong growth, and bears every year. It is among our earliest apples, and begins to color, and may be used, when only half grown. It is remarkable for its pure flavor. Where this fruit can be had, I should think the *Yellow Harvest* which ripens about the same time would not be stewed.

The *Belmont* is another very superior kind for this purpose. It is also of rapid growth, comes soon into bearing, and bears abundantly. It is a first rate "*hand apple*," as our old neighbor used to say—in other words, a fine table fruit (uncooked;) but its flavor when stewed is unsurpassed. To the purity of the *Red Astracan*, it adds a spiciness of its own.

There is a vacancy in time however, between the ripening of these fruits; but I hope that experiments to be made the ensuing season, may discover other excellent sorts. D. T. *Greatfield*, 1 *mo.*, 1851.

WHITE-WASH.—Take two quarts of skimmed milk; two ounces of fresh-slaked lime; two pounds whiting; or the same proportions for any large quantity. Put the lime into a stone vessel, and pour upon it a sufficient quantity of milk to make a mixture resembling cream; then add the remainder of the material. When this is done, crumble and spread the whiting on the surface of the fluid, in which it will gradually sink. It must then be well stirred, or ground, as any other paint. By the addition of any coloring matter, you may make it suit your fancy. It must be put on with a paint brush, and when dry, a second coat should be given. The quantity named, is sufficient for twenty-five square yards.

Preparations of Barley.

MOULDED BARLEY:—6 oz. of pearl barley, 3½ pints of water, and sugar. Steep the barley for an hour; drain it, and pour the water boiling upon it, let it stew quickly in the oven iu an earthenware jar, covered, until perfectly soft, and all the water is absorbed. When about half enough, add the sugar, and essence of lemon, to the taste. Pour it into a mould, previously dipped in cold water, and let it stand to set. When boiled quickly, the above quantity requires 2½ hours, and is a much better color than when it is longer in preparation. When the barley flour is used, no steeping is required.

BARLEY SOUP:—3 oz. of barley; 1½ oz. of stale bread crumbs; salt, and parsley. Wash and steep the barley for 12 hours, in ½ pint of water to which a piece of carbonate of soda (the size of a pea) has been added; then pour off the water not absorbed, and add the crumbs of stale bread, 3 quarts of boiling water, and the salt. Digest these in a salt-glazed covered jar, in the oven or (boil them slowly in a well-tinned covered pan,) for from 2 to 4 hours, adding the chopped parsley and a little pepper, 30 minutes before the expiration of the time for boiling.

BARLEY WATER.—1 oz. of pearl barley and 2 pints of water. Boil the barley in the water till it is reduced to 1 pint; then strain, and sweeten, flavoring with the essence of lemon, rind of lemon, raisins, or currant jelly. Although the additions to the barley water render it more agreeable, they, however, lessen its diluent properties.—*Vegetarian Messenger.*

ANSWERS TO INQUIRIES.

NAME OF APPLE.—S. S. D., Meriden, N. H. The apple which you received under the name of "Washington Strawberry," may be the Late Strawberry, of which Thomas gives the following description: "LATE STRAWBERRY. (Syn. Strawberry, Autumn Strawberry.) Size medium; roundish, slightly conical, sometimes faintly ribbed; nearly whole surface with small broken streaks of light and dark red; stalk slender, about an inch long, basin ribbed; flesh yellowish white, slightly fibrous, very tender and juicy, with a fine, very agreeable, sub-acid flavor. Young trees of remarkable thrifty growth, leaves sharply serrate, which at once distinguishes them from the crenate leaves of the Early Strawberry. Ripens early in autumn, and often keeps till winter. Very productive. One of the best early autumn apples."

LOSS OF MANURES.—M. E. O., Galesville, N. Y Fertilizers are wasted both by leaching or washing, and evaporation. That they are carried off to a great extent by the former mode, may be seen by an examination of the water which runs from fields just after rains. It is evident, also, from the rich deposit which is left by streams, and the general fertility of alluvial soils. The substances which promote fertility in soils, are more or less soluble, and hence may be taken up and carried away by water. The *organic* portions are capable, besides, of assuming an æriform state, and may be taken up by the atmosphere. The nitrogenous portion of manures, (ammonia,) which is, perhaps, their most valuable property, is very volatile, and readily escapes into the air when not covered or combined with earthy or carbonaceous matters. It is also easily dissolved by water, and when the soil is unduly saturated, may be taken away by the liquid. (See Cultivator for 1848, p. 284.)

HEDGE.—W. P. B., Coxsackie. The Buckthorn will be the "easiest and quickest raised, and most durable," and it will "keep fowls from entering." You can buy two-year-old plants at most of the nurseries at $5 per thousand, and seed may be had of the seed-dealers at $1.25 per quart. The plants should be set in a double row, or two rows, six inches apart, and a foot apart in the rows, which will require 32 plants to a rod, or 2000 to 1000 feet. (See Cultivator for 1850, pp. 68, 69.)

ANIMAL OFFAL AS MANURE.—T. H. C., New Albany, Ind. We think the best use which could have been made of the "sheep's heads, hogs' feet, kidneys, and plucks," would have been to mix them in a heap with the "creek mud and forest leaves," together with strong, unleached wood ashes, at the rate of one bushel to five of the animal matter. The strong decomposition which would follow, would completely dissolve the flesh, skin, &c., and render many of the bones so soft that they might be easily pulverised sufficiently to be applied to the soil.

The mud and leaves would absorb the gases. The compost will be very strong, and should be applied with caution till it is ascertained how much the crops will bear. It should be slightly buried, but kept near the surface. Night-soil may be mixed with muck at the rate of one load of the former to three of the latter. It should be mixed several weeks before being used. It is most properly applied to grain crops; it is unsuitable for potatoes and culinary vegetables generally.

Draining-Tiles.—T. H. C. We know of no point nearer you than Waterloo, in this state where these tiles can be had. Mr. B. F. Whartenby of that place can supply the various sizes.

Mulching for Potatoes.—C. D. S., Junction, Ill. We should think the effect of covering the ground between rows of potatoes, with straw or coarse stable manure, would be favorable to the crop. It would tend to keep the soil moist, and at a more equable temperature than if it were exposed directly to the sun. Our course would be to hoe the potatoes, carefully, as soon as they were fairly above ground, and then spread over the litter. If it was laid three inches thick, it would probably prevent all growth of weeds for the season, and would supersede the necessity of any further cultivation.

"Live Forever."—J. F. G., New Baltimore, N. Y. We do not know the plant to which you allude under this name, and therefore cannot advise as to the "most expeditious way of eradicating it." Please send a specimen of the plant.

Locust for Timber.—S. H., Amenia, N. Y. The yellow locust, (*Robinia pseudacacia*,) is the best for timber. The seed may be planted either in spring or fall. If in the former, it is best to soften the hard covering of the seed by pouring hot water on it, which will greatly hasten germination. If planted in fall, this is not necessary, as the frost will produce the same effect. Make drills, three feet apart, and drop the seed about as thick as you would bush-beans, covering to the depth of two inches—keep the plants clean from weeds. They may be transplanted to the plantation the second or third year. The seed is for sale by Emery & Co., at $2 per pound.

Red Cedar for Hedges.—G. M., Lowell, Mass. Mr. James Wilson of this city, has the plants suitable for transplanting.

Michigan Sod and Subsoil Plow.—C. W. C., New Durham, Ind. This plow is for sale by Prouty & Mears, Boston, Emery & Co., Albany, and Newell French, (the proprietor of the patent,) Rome, N. Y.

Pond Mud.—D. S. O. This would probably be useful in improving your sandy soil. Your best way will be to apply several loads by spreading it on and incorporating it with the soil, next fall. You will see by the result whether it would be an object to apply more.

Mill for Grinding Corn and Cobs.—D. S. O. Sinclair's corn and cob-crusher, cost, $35 to $40, according to size, with extra cutters and plates. It is for sale by R. Sinclair, Jr., Baltimore, and Emery & Co., Albany.

Mineral Paint.—G. A. H., West Stockholm, N. Y. You will find an article on this subject in our volume for 1849, p. 379. W. H. Starr, 67 Beekman street, New York, is an agent for the sale of this kind of paint.

Curious Machine.—M. K., Fond Du Lac, Wis. "Has the inventive genius of Yankeedom, yet produced a machine that will thrash, grind cob meal, and cut straw—two-horse power, and costing not over $100 altogether?" We *rather think* not, but if any one knows of such a machine, let him speak.

Sandy Soil.—A. C. C., Spencer, Tenn. The clay, pounded bricks, and the muck taken from your "mountain bog," of which you speak, are good substances to apply to your sandy soil. Your stable manure would do better made into a compost with the muck and clay, than applied by itself on such soil. The "chips and dirt from the wood-house" we think would not be worth the carting on the land you describe.

Plan for Stable and Carriage-house.—A. C. C. We would refer you to our volume for 1844, pp. 282, 385, and the volume for 1846, p. 31.

Gypsum.—D. S. O., Clarion county, Pa. We are unable to refer to any analyses which would show the difference in the Nova Scotia and Genesee plaster; but by an experiment on a small scale, you could readily ascertain their relative value for your purposes.

Straw Cutter.—W. E., Jonesboro, Tenn. As a cutter for straw or hay, we know of nothing superior to Hovey's. Its price is from $8 to $25, according to size—latter for horse-power. For cutting and mashing large cornstalks, Wheeler's is an excellent article. Price $27, for horse power.

Grass for Sandy Loam.—W. E. We should think the orchard grass (*Dactylis glomerata*) and perhaps the Kentucky Blue grass (*Poa pratensis*,) if your soil is in tolerable condition, might do as well as any with you.

Destruction of House Rats.—W. S., Lahaska, Pa. Rats may be decoyed by various substances, and induced to enter traps set for them. The oil of rhodium and oil of anise are used for this purpose by professional rat-catchers. Dr. J. V. C. Smith of Boston, states that he has used these substances with advantage. He states also, that ground plaster or gypsum, mixed with dry meal, will be eaten by rats, and that it will *set* in the stomach and kill them.

Corn Planter.—W. S. "Is there a machine for planting corn with accuracy?" Emery's will plant it with sufficient accuracy, unless you want it in rows *both ways*. W. D., Quakertown, Pa. Emery's machine is generally preferred in this section for corn, broom-corn, &c.

Dairy-house.—D. A. L., Bethel, Vt. You will find some good suggestions in relation to the construction of such a building, in Mr. Craig's communication in our March number. For description of the best modes of butter-making, practiced in this state, see Cultivator for 1848, pp. 207, 271—also for 1850, pp. 169, 170.

Bone-mill.—L. B. A., Dorset, Vt. We do not know of a cut of such a mill. Should we find one that we think would answer the purpose, we will publish it.

Seed Corn.—J. W. W., Montgomery county, Pa. We should think the Vermont improved Canada, the Red Blaze, or the Early eight-rowed White, all of which could be had of Emery & Co., of this city, would, if planted "from the first to the twelfth of May, mature in time to be taken from the field and put in shocks by the first of September;" and if the ground was in good condition and the crop well cultivated, there would be no difficulty in obtaining fifty bushels to the acre.

The Horticultural Department.

CONDUCTED BY J. J. THOMAS, MACEDON, N. Y.

The Kitchen Garden.

As often as any one visits our horticultural exhibitions, he cannot fail to be as often struck with the fine appearance of the vegetables, their large size, and succulent growth. Here, with the thoughtless, the interest ends; while others naturally ask themselves, "why do not the products of my garden—now small, tough, and stringy,—grow like these?" This is a very profitable inquiry, and we shall endeavor to answer it in some of its particulars.

To have good vegetables, the first, and usually by far the most important requisite, is a *good soil*. To keep a free and succulent growth during our hot summers, it must be *deep*, so as to form a magazine of moisture, by absorbing like a sponge all the rains that fall, and retaining them till wanted in time of drouth. This a shallow soil cannot do, neither can it allow that full and free extension of roots so essential to large and vigorous growth.

Whenever a garden soil is deficient in these two great qualities, as most are naturally, it must be improved by artificial means. Whatever may be its character, the first thing is to have it thoroughly drained, unless it should happen to possess the very unusual merit of needing no draining. Ditches are best laid with tile manufactured for the purpose; but where small surface-stones are plentiful, they are quite as economical, and at the same time it is useful to the land, to use them instead. But here great caution is needed to prevent the soil from settling or washing in among them,—a very common evil. It is prevented by covering the surface of the stones with pebbles, or small flat stones, or more easily with slabs if they can be cheaply obtained. Being excluded from the air, they will last a long time, especially if the wood be of any durable kind. We have never found them to fail in preserving ditches, even where the soil partook strongly of the character of quicksand. They are covered well with straw or inverted sods before the earth is shovelled in.

To deepen the soil, first use a subsoil plow to mellow its texture to a depth of a foot and a half, or if possible two feet. This will admit the trench-plow, (that is, a large common plow in a previous furrow,) to a depth which could not possibly be attained without subsoiling, and will serve to mix the parts together and to work in the manure, to such a depth as to manufacture a deep bed of rich garden earth. The depth could not be reached without the subsoil plow, and the manure could not be worked down without the trenching; and it may be useful to alternate them, two or three times before the work is done in the best manner. Where the garden is so situated that a team cannot be introduced, the improvement effected will well pay for the cost of trenching by hand.

Soils are very often either too heavy or too light. When too heavy, they may be rendered lighter by working in coarse manure, chip-dirt, and straw, in connexion with carting on sand. The latter may seem a slow and costly operation; but as the sand thus applied always remains, it only requires a few annual dressings to effect a great and permanent improvement. We have seen heavy soils, which were always either hard and cloddy, or else unfit to work from their plastic adhesiveness, made fine, rich, crumbling, and fitted exactly for gardening, by burning the earth. This was done by first making a fire of such coarse knotty wood and vegetable rubbish as could not well be used as fuel within doors, and then as soon as it began to burn well, to throw on earth gradually, so as to keep it half smothered, till the wood was consumed. This was done at the dry season, and when a large portion of old turf was thrown on the fire, with some brush or vegetable rubbish, a great deal of earth was burned with very little fuel. This burnt earth, scattered over the ground, had a great and very permanent effect; and there is probably no cheaper or more effectual way of mellowing as well as enriching heavy soils.

When the soil is too light, it may often be made just right by mixing up with it the subsoil. If the under soil is not clayey, carting on an annual dressing of clay will in a few years effect a great improvement.

It sometimes happens, that old, long-worn garden soils, may be strikingly benefitted by subsoiling and trenching; the surface above and the marly stratum immediately beneath, constituting a mixture of precisely the kind wanted. In other cases, the application of lime and ashes will prove excellent on old gardens.

A great saving may be effected in the cost of *cultivating* kitchen gardens by the use of the plow and cultivator, wherever they can be so laid out as to admit the labor of a horse.

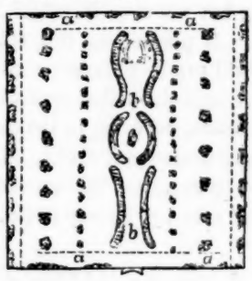


Fig. 1—Kitchen Garden for horse culture.

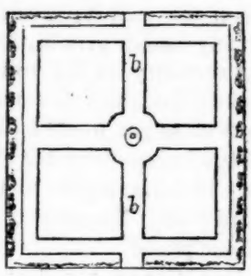


Fig. 2—Kitchen Garden laid out into quarters.

In the above figure, (Fig. 1,) we have endeavored to show an arrangement for this purpose, where dwarf fruit trees, currant and gooseberry bushes, &c. are planted in continuous rows across the garden; the crops of vegetables being planted between, and the whole cultivated by a horse, which turns about at the ends on the spaces or alleys, *a a*. The flower garden and ornamental part occupies a strip at the centre, on each side of the alley *b b*. If desired, this part may be wholly omitted. Fig. 2, shows the more common way of laying out kitchen gardens into *quarters*, where, it will be observed, horse labor cannot be introduced.

There are a few of the smaller vegetables, as radishes, lettuce, &c., which cannot well be worked with plow and cultivator. For such, it is best to have one single narrow bed extending across the garden. For many of the larger vegetables, the space allotted to the improved mode will give a better growth than the common way of planting them in thick beds. For example, asparagus

when thus given plenty of space, will attain more than double the growth acquired with ordinary cultivation.

There is another matter of economy which will be obvious as soon as named,—that is, placing the kitchen garden as near to the stable as practicable, so that there will be no temptation to omit the copious application of manure at the right moment.

Suckers from Fruit Trees.

There is a general impression that suckers of fruit trees are less valuable for stocks than seedlings—possessing, it is alleged, less vitality, and exhibiting a stronger tendency to the reproduction of suckers. My experience on this point has been neither very long nor extentensive, but as far as it goes, I doubt both of the above assertions.

The plum, cherry, quince, gooseberry and currant, eminently, and the apple and pear, to tome extent. seem *designed* to continue themselves in this mode, as well as to reproduce themselves from seed. The same thing is true of a great many other fruits and flowers. whether produced by woody stems or herbaceous plants. As a philosopher, I would hesitate hastily to question such an arrangement of nature, as unwise, since it is so eminently cheap and useful. We have now in this. Oneida county, the Bleecker plum, (the Lombard of Downing,) by the thousand, not one of which, so far as I know. was propagated either by bud or graft. And yet this tree is as thrifty and hardy as a burdock in an old barn-yard. The same remark may be made substantially, of other kinds of plums. That a seedling possesses a higher degree of vitality than a bud, graft, or sucker, is perhaps philosophically true, especially when the latter is from an old tree; but when taken from a young tree, the difference may be so slight, as practically to be neglected.

Again, the assertion that a sucker exhibits a superinduced tendency to the reproduction of suckers, is in accordance neither with science nor facts. A seedling tree—root and stem—is one homogeneous system. The original stem, standing centrally upon its roots, and a sucker, standing, it may be, four feet distant from the same tree, and based on one of its extended horizontal roots, can hardly be supposed to differ in constitutional tendencies. The *parent* tree has sent up this sucker, and thus manifested *its* inherent tendency; will the *sucker* be likely to do either less or more? But let us investigate the main allegation above alluded to—that *suckers exhibit less vitality than seedlings.* A standard seedling tree, is found from examination in the autumn, to exhibit at the collar, below it, or upon some extended root, a small bud or buds. In the succeeding spring these buds throw up shoots of vigorous growth, dependent, for the time being, on the parent tree. In the latter part of the same season, but sometimes not until the succeeding one, such a sucker forms a collar, just beneath the surface of the earth, from which it throws out in regular order, an abundance of horizontal roots. Soon after this, the tap-root that connects with the parent tree, and which, for the time, had been its sole radical dependance, becomes nearly obliterated. You have now, at the end of the first or second year, a perfect tree, whose sucker origin cannot be inferred from anything in its appearance. Its origin in a little bud, on the healthful root of a young tree, may have combined as much vitality as would be involved in its origin from a seed borne by the top of the tree,—certainly as much as would be found in a bud or graft from the same tree. In this case you have the advantage, moreover, if the tree were a valuable variety, of its propagation upon its own roots. There may be cases in which a tree, valuable for its fruit, has always exhibited a feeble or imperfect root. In such cases the variety should be extended by buds and grafts set upon healthful stocks. There is another consideration. A tree, even when well situated in regard to climate, soil and position, will usually exhibit greater hardiness, and more abiding health of root, than of stem. Mechanical accidents, insects, and the influence of unfavorable seasons—one or all, may seriously damage the stem, while the root remains in comparative health. In this case, the renewal of the tree by heading back, or by propagating it from sprouts already existing, is a matter of obvious propriety. It is, I think, a statement of Loudon, in his Encyclopedia of Gardening, that the English nurserymen, who cultivate hardwood trees, frequently head back young trees, once and even twice, before they get a stem that is healthful and vigorous. Indeed, nature herself, often does this, throwing up a stout side shoot or sucker, to supercede the parent tree, where disease or accident had injured it.

It may be farther observed, that many trees, propagated by buds and grafts, exhibit imperfect adaptations to the new stock. Here the union is never quite perfect and healthful. Now this difficulty is avoided by the propagation of such trees by suckers. Nay, farther, a difference of season of maturity, or chemical character of circulation, frequently exists between the stock and the budded or grafted top, so that the fruit is defoliated before it is ripened, in consequence of the earlier maturity of the stock; or its fruit injured by the astringent character of the sap of the same stock. It were clearly better to use natural suckers of a good variety, than to propagate it on such stocks. In conclusion—I infer that it is safer to follow nature in all cases, where she prompts strongly to the continuance of a variety by suckers; and that, therefore, there is no objection to the use of suckers, as stocks for buds and grafts, simply on the ground that they *are* suckers; and that, though in particular cases, suckers may exhibit less of vitality and shapeliness than seedlings, their general utility is not affected by that origin. The method so much resorted to in Europe, of propagation by *layering*, is analagous to propagation by suckers, though obviously a less natural, shapely, and healthful mode.

Suckers, if removed before they form collars and horizontal roots, are almost in the state of cuttings, and will often die, or dwindle for two or three years, before they recover and grow rapidly. Hence they should not be removed until well supplied with horizontal roots. Suckers, too, that spring up in a well cultivated soil, will make much better trees than those which spring up in neglected positions. Suckers sometimes come up in close bundles. It is then always best to thin them out to two or three, since otherwise, they cannot root well, or, if they do, cannot be separated safely. C. E. G.

Utica, Jan. 27, 1851.

Fruit Prospects for 1851.

The progress of vegetation in 1850, in the case of the peach, plum and grape, was probably unfavorable n its bearing on the prospects of fruit for the present year.

Peaches were greatly injured by the "curled leaf," in June, 1850, the fruit being nearly all destroyed, and all the early shoots incurably dwarfed. The shoots that must bear the fruit, if any, this year, started late, and did not mature very well in the autumn. My fear is, that the buds had less vigor than usual to meet the severity of winter. A considerable number of buds are yet alive, enough, perhaps, for a fair crop; but whether they will be sustained though the remaining vicissitudes of winter and spring, we cannot tell.

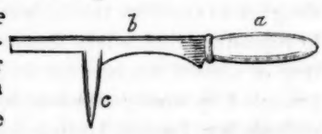
Plums were defoliated extensively by the hot, damp weather between July 14th and Aug. 21st., while yet the fruit was not mature. Hence, I am lead to fear a feeble state of its fruit buds, though my experience in these matters does not enable me to anticipate confidently.

Grapes were severely injured, at the same time, and in the same way, as plums were. Much of the fruit never matured, in consequence of the defoliation occasioned by the mildew. When trimmed, in October, many vines needed cutting back nearly to their old wood, so immature was the growth of the season. Grafts set in April, that had made a growth of eight feet, were frequently cut back almost to the stock. I fear, therefore, the buds of next spring will start weakly, at least in many places. C. E. G. *Utica, Jan.* 25, 1851.

On Grafting.

As the season for grafting is approaching, a few remarks upon that subject may be acceptable. There is no kind of labor which brings a richer return than a few hours spent in grafting. And at the present time there is no difficulty in obtaining scions of the most approved varieties, gratis, or at a rate merely nominal. The best scions for grafting apple trees, are obtained from the last year's growth, on the points of bearing limbs. Some grafters take scions of two years growth, under the impression that the grafts will bear one year sooner, but I would not recommend the practice. Many of the buds appear to lose their vitality, and the growth is apt to be irregular and unthrifty. The scions may be cut any time during February or March, and placed in a cellar with the butts upon the ground where the air will not strike them. In grafting apple trees, I have been the most successful, in cutting the scions about the fifteenth of April, and setting them immediately. Grafting wax may be made in the proportion of 2¼ lbs. rosin, 1 lb. tallow, and ¾ lb. of beeswax. When melted together it should be poured into a tub of water, and the operator, after rubbing his hands with tallow, should work it over till it becomes tough, and light-colored. If it should be too sticky, more beeswax may be used. Some grafters omit the tallow, and use in its stead, a small quantity of linseed oil, poured into the kettle after the rosin and beeswax are melted. If the weather should be cold at the time of using, the wax may be softened by placing it in a kettle of warm water, or holding it over a lantern with a candle burning in it. The tools necessary for grafting are—a back-saw, set wide enough to run easily through the limb, a grafter's knife and wedge united, to split the limb and hold it open till the grafts are set; a small mallet, and a thin bladed pocket knife, with which to sharpen the scions. Probably the best time for grafting apple trees, is from the 15th of April to the 10th of May. If the grafting is to be done in May, the scions should be cut earlier in the season. As the operation of split grafting is easily learned by a few minutes observation of the process, I need not go into the details. The outside of the wood in the stock and scions should exactly correspond.

In grafting an orchard, many farmers set a large number of limbs in the middle of the top, leaving many of the lower branches to be lopped off as the new crown increases in size. It would be better for them to distribute their favors more equally over the tree, and thus secure the advantages of greater space, air, and light—and finally more abundant bearing.



The annexed figure represents a very convenient grafting tool for splitting the stocks in orchard grafting—*a*, the handle—*b*, the blade—*c*, the wedge—*d*, the head to knock it out with, after the grafts are set. The whole need not be more than 9 or 10 inches long, including the handle. D. D. *Geneva, March*, 1850.

Northern Fruit Trees.

EDS. CULTIVATOR—In the last volume of the Cultivator, p. 395, is an article from the pen of S. W. Jewett, on the adaptation of southern trees to a more northern latitude, which appears to me to be calculated to mislead the unwary, and therefore to require some notice.

The writer admits that—"fruit trees of most kinds taken from nurseries along the sea-board, and replanted in Vermont, have, in most cases, met with ill success." But he adds—"the fact is now *well established*, that those trees re-set in these parts [Addison county] which were propagated in the nurseries on the banks of the Hudson, *are hardy and thrive better than most of the trees from our nurseries.*"

On what authority this statement is founded, except the single case of Mr. Hunt, who, it seems, is engaged in selling trees from southern nursuries, the writer has not informed us. I apprehend the matter has not been sufficiently tested to become a well established fact, that trees reared on the banks of the Hudson are better adapted to our climate than those of our own raising. The *admitted* fact that trees brought from the sea-board —from a climate only a little milder than that of the banks of the Hudson, meet with ill success, seems sadly to conflict with the *other* fact so "well established."

Now, the writer will not probably deny that the reason of the almost universal "ill success" attending trees brought from the sea-board is, that being reared in a milder climate, their texture and habits are not such as to adapt them to our higher latitude: and if there is any stability or uniformity in the natural laws, this reason holds good in all cases where trees or other plants are removed from south to north, just in proportion to the difference in the temperature of the climate; that is, a

tree brought from Newburgh, Hudson, or Albany, is as *really* affected by its removal from a milder to a more rigorous climate, as one brought from Long-Island or New Jersey; but only in proportion to the change of climate to which it is subjected. In order to prove that there *is* a decided difference in climate, between the banks of the Hudson and lake Champlain, it is only necessary to refer to the fact that Chestnuts, Peaches, Nectarines, Apricots, Quinces, the Catawba Grape, and several other kinds of fruit, flourish and mature on the Hudson, while they will not succeed in Addison county, except in some peculiarly favored spot, and with special protection and care.

If it is a fact, as stated by S. W. J., that some of the trees from the south, which have come under his observation, "*thrive better than most of those raised in our nurseries,*" the cause must be sought elsewhere than in the change of climate, for *that*, as has been shown, is against them. When our own northern nurseries are able to supply trees of as vigorous growth, as fine appearance and of as choice varieties as are brought from southern nurseries, and *I trust that day is not far distant*, it will require no uncommon share of Yankee shrewdness to decide which will be preferred for northern orchards. Row'd T. Robinson. *Ferrisburgh, Addison county, Vt., 1st mo.* 18, 1851.

Cuttings from Suckers.

Peach trees, headed down for the development of the bud, and Quinces under all circumstances, frequently throw up suckers close to the parent stem. These if removed from the old stock with clean cut, will grow with great facility.

It is not worth while to do this ordinarily with peaches, certainly not where stones are to be had. But with Quinces it is otherwise. Such cuttings from the latter will make twice the growth the first season that will be made by an ordinary cutting taken from the top of the tree.

The reason obviously of this superiority lies in the fact that the stump of the cutting, having been formed below the surface, is more disposed to throw out roots than a cutting all whose growth had been above ground.

Indeed, in the case of quinces you can frequently take off suckers with roots already formed.

I have not tested this method with suckers from the pear, apple and plum, but analogically I have no doubt of similar success.* C. E. G. *Utica, Jan.* 24, 1851.

Timber of the Deodar.—It appears that the timber of the Deodar cedar, (the most elegant perhaps of all evergreens, and which now sells at so high a price in this country,) is of the most durable character. Among the Himalayas, its native localities, the trunk sometimes attains a size of ten to twelve feet in diameter; and an instance is recorded where the timber was taken from a temple supposed to have existed at least 1000 years, as sound in appearance as when placed there.

* A success proportioned to their susceptibility of being grown from cuttings, which all know to be far less than in the case of quinces.

NEW PUBLICATIONS.

American Journal of Science and Art.—The number of this able and valuable journal for March, contains several interesting communications, among which are the following: Velocity of the galvanic current in Telegraph wires; by B. A. Gould, jr. Mineral Springs of Camden; by T. S. Hunt. Whirlwinds produced by the Burning of a Cane-Brake; by A. F. Olmsted. Notices of coal in China; by D. J. McGowan. Limit of Perpetual Snow in the Himalaya; by Lieut. Strachey. Analyses of the Ashes of certain Commercial Teas, communicated by Prof. E. N. Horsford. The work is conducted by Professors Silliman and J. D. Dana, aided in chemistry and physics by Dr. Wolcott Gibbs. Published in New Haven on the first of every second month, at $5 per year.

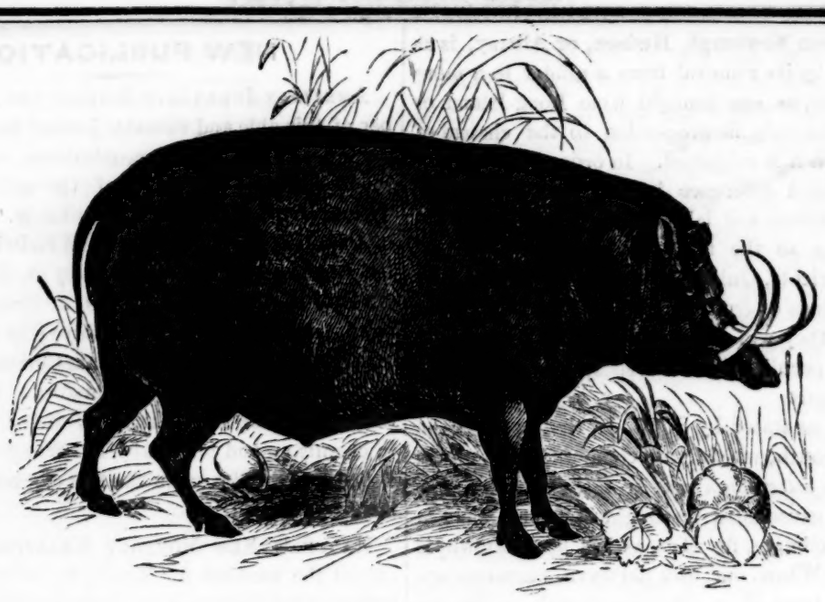
Harper's New Monthly Magazine.—We have received the number for March, for which it is sufficient praise to say, it equals its predecessors. The first portion comprises "Spring," by Thompson, with fifteen very beautiful illustrations. With the usual variety of contents, the number closes with a humorous chapter from Punch, appropriately illustrated. Published monthly at $3 a year, by Harper & Brothers, 82 Cliff street, New-York.

Lossing's Pictorial Field Book of the Revolution—No. 11 of this work, relates particularly to some of the first scenes of the revolution, such as the battles of Lexington, Bunker Hill, &c. The illustrations are of the highest order of merit, and the general execution of the work is deserving the highest praise. Published by Harper & Brothers at twenty-five cents a number, each number containing forty-eight large octavo pages.

The Farmer's Guide.—We have received No. 15 of this excellent work, by Henry Stephens, author of the *Book of the Farm*, assisted by Prof. J. P. Norton. It is the most thorough work on agriculture which has been published. New York: Leonard Scott & Co., 79 Fulton street—twenty-five cents per number—the work to be completed in 22 numbers of 64 pages each.

Next Show of the Royal Agricultural Society.—The next show of this society will be held in Hyde Park, London, in July next, during the exhibition of the great World's Fair. The Council of the Society has decided on the details of the prize-sheet, of which the following schedule represents, summarily, the divisions and the respective amount of prizes assigned to each:—

Short-horn cattle,	£215
Hereford cattle,	215
Devon cattle,	215
Longhorn cattle,	40
Channel Islands breed,	40
Sussex breed,	40
Scotch horned cattle,	45
Scotch polled cattle,	45
Welsh, Irish, and other pure breeds,	40
Horses,	270
Leicester sheep,	170
South-downs and other short-wooled sheep,	170
Long-wooled sheep (excluding Leicesters,)	85
Sheep best adapted to a mountain district (excluding Southdowns,).	50
Pigs,	130
Total,	£1770



THE BABIRUSSA

The Farmer's Note-Book.

The Babirussa.

The group of animals termed *Suidæ*, or the hog family, comprehends several distinct genera, one of which is the Babirussa, the animal represented by the above cut. It is the only known species in the genus. Its native country is the Indian Archipelago, from which it has been occasionally taken to various European countries, but has never been fairly reclaimed from its wild state, though specimens have been kept for several years in menageries and museums. The animal resembles the hog in its habits, and its flesh is said to be good for food. Martin observes—

"Though allied to *sus*, [hog,] the Babirussa is distinguished by certain peculiarities, one of which is the upward direction of the alveoli of the upper tusks or canine teeth; these tusks in the male, are enormously developed, as to length, and are extraordinary both in their form and position. They do not pass out between the lips, as in the hog, but cut through the skin of the snout, so as to appear like horns growing in an unusual situation. Instead of being stout and strong, they are slender, and rising vertically, curve backwards with a slight indication outwards, so as to form part of a circle, and often touch the skin of the forehead. The tusks of the lower jaw are sharp and powerful, and emerge from between the lips; they bend upwards and outwards, and are sufficiently formidable weapons. The upper tusks are wanting in the female, and the lower are small. The incisors are four in number in each jaw. The molars are five on each side, above and below."

Improved Ornamental Fence.

EDS. CULTIVATOR—Enclosed I send you an addition to the already numerous plans for good fences, which like laws, to be serviceable, should be efficient, durable, and cheap; in order to secure these three qualities, many circumstances must be considered. The situation of the farm, the relative cost of different materials, the convenience for working them, &c. If there be plenty of timber on the land that would make rails, and so situated as not to be valuable for other purposes, an efficient, durable, and cheap fence may be made of rails; but if

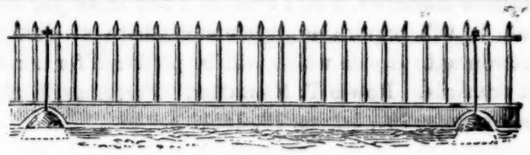


Fig. 1.

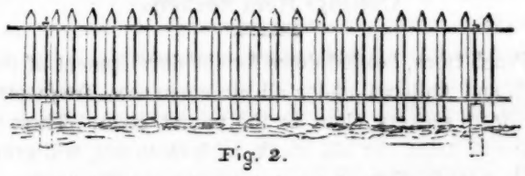


Fig. 2.

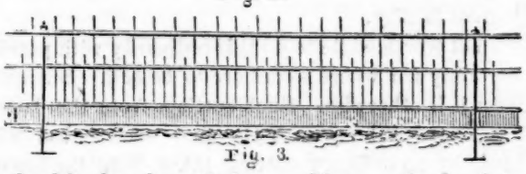
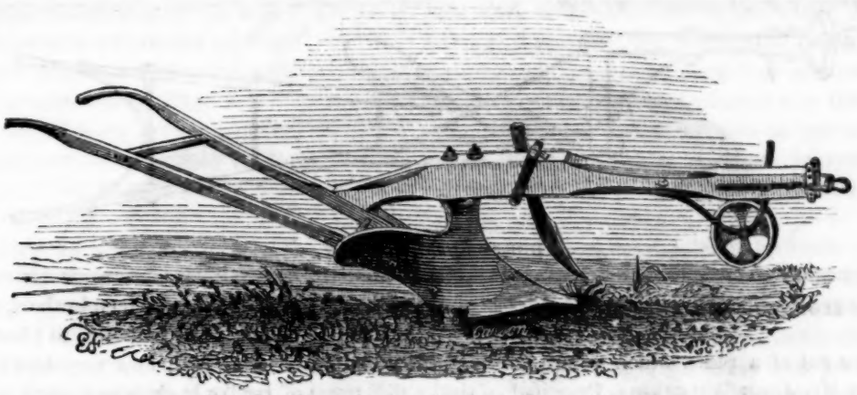


Fig. 3.

the land be free from timber, and have a plenty of stone scattered over the surface, a good stone fence would possess the three requisite qualities in a high degree. Should the land be free from both timber and stone, a board fence, such as is described in the fifth vol. of the Cultivator on the 156th page, if cedar posts and boards should not be very expensive, may possess the above mentioned qualities,—but in the absence of all these conveniencies, such a fence as is described below, and represented in the accompaning diagrams, will possess the desirable qualities in a high degree. Picket fences are well known to be the most efficient, but their durability, when constructed wholly of wood, has not been such as would warrant the expense, therefore they possess but one of the above qualities. There are three kinds of picket fences contemplated in the cuts, all having iron posts. (See Figs. 1, 2, 3.) Where large cobblestones are conveniently situated on the land, they may be placed about sixteen feet apart, on the line of the proposed fence, about half buried in the earth, and the iron posts drilled into them, and either wedged, cemented, or run in with lead. (See Fig. 4.) When quarried stone are more convenient, blocks may be split out about three feet long, set in the ground about two feet, and the iron



W. U. Chase's Amsterdam Plow, No. 7,

Which received the second premium for light soils, at the trial instituted by the New-York State Agricultural Society, June, 1850. It is manufactured by Mr. CHASE, with various other sizes, at Amsterdam, N. Y. For particulars, see report of the committee on the trial referred to, in our columns for 1850, pp. 324–330—also *Transactions* of the Society for 1850.

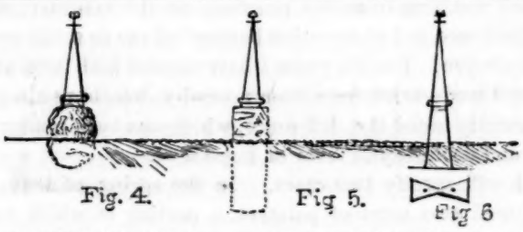


Fig. 4. Fig 5. Fig 6

post drilled into the top, as represented in Fig. 5. The third kind is where no stone is convenient; the iron post is then set into a cast-iron plate, represented in Fig. 6, which plate should be about two feet long, and buried below the surface about six inches, which makes a very permanent post, unless the land is subject to heaving by frost; in such case the plate should be buried deeper.

Fig. 1 is a view of a fence supported by posts of small iron, round or square, about half of an inch in diameter if square, and five-eights of an inch if round; the manner of constructing the posts is shown in the cut, so plain as to require no further description. The square pickets

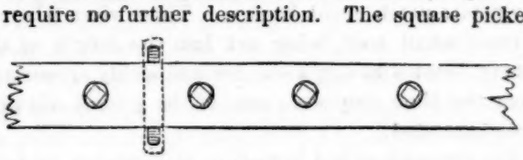


Fig. 7.

are put through round holes, as shown in Fig. 7, which also shows the manner of fastening the iron posts to the lower rail, by square staples driven round the iron into

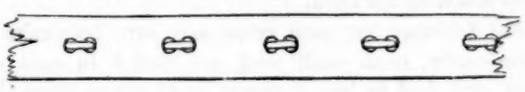


Fig. 8.

the wood; Fig. 8, shows the manner of putting paling through the rails instead of square pickets.

Below are estimates, showing the relative cost of fences of stone and iron posts, and posts all iron,—the wood work not planed. About sixteen cents a rod may be saved by letting the pickets or paling go through the lower rail to the ground, and dispense with the base-board.

Cost of picket fence with base-board, (Fig. 1.) per rod—

20 feet 1¼ inch lumber, at $7.00 per M.	$0 14
16 feet 1 inch lumber, at $5.50 per M.	16
5 lbs. iron, at 8 cents per pound,	40
1 stone, say,	25
Expense of constructing,	30
Total,	$1 18

Cost of pale fence, without base-board, (Fig. 2.) per rod—

15 feet 1¼ inch lumber, at $7.00 per M.	$0 11
20 feet ¾ inch lumber, at $5.00 per M.	10
5 lbs. iron,	40
1 stone, say,	25
Expense of constructing,	30
	$1 16

Cost of three rail and double picket fence, with all iron posts, and with base-board, (Fig. 3,) per rod—

25 feet 1 inch lumber, at $5.50 per M.	$0 13
17 feet 1¼ inch lumber, at $7.00 per M.	12
7 lbs. wrought iron, 8 cents per pound,	56
9 lbs. cast iron, 3½ cents per pound,	32
Expense of constructing,	20
	$1 33

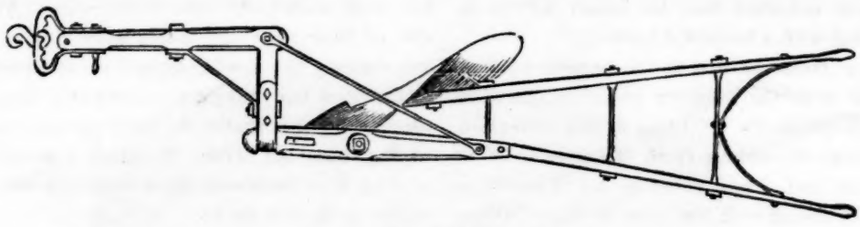
Cost of a picket fence, with all iron posts, and with base-board, per rod—

20 feet 1½ inch lumber, at $7.00 per M.	$0 14
16 feet 1 inch lumber, at $5.50 per M.	09
7 lbs. iron, 8 cents per pound,	56
9 lbs. cast iron, 3½ cents per pound,	32
Expense of construction,	20
	$1 31

The above estimate must be varied to conform to the place and circumstances attending the construction of the fences. If required to be constructed by hand labor, the last item in each estimate should be doubled, at least, but if water or steam power be used, with proper conveniences, and materials are procured as estimated, the cost will not exceed the estimates.

Iron posts of this construction, have never been in use to my knowledge, but square pickets have been put through round holes in the rails, for a number of years, to great advantage. DEAN. *Lyonsdale, N. Y, Feb.* 8.

GREAT PRODUCTS OF WOOL.—Mr. Nathan Cushing, of Woodstock, Vermont, recently deposited in the White River wool depot, 490 fleeces of well washed wool, which weighed 1,754 pounds, and sold for $764.34. The extra sold for 46 cents, the fine 43¼ cents, and No. 1, 41½ cts., No. 2, at 40 cents. Average sale by the fleece, $1.91. Mr. Bridge, of Pomfret, deposited 332 fleeces, which weighed 1,447 pounds, which sold for $616.32, the different qualities bringing prices of the first mentioned lot. *Vermont Journal.*



HORTICULTURAL PLOW.

"Horticultural Plow."

The above is a cut of a plow, which we are informed was invented by Mr. JOHN WILKINSON, Principal of the Mount Airy Agricultural Institute, Germantown, Pa. It is described as follows:

"The purposes for which this plow is designed, are for tilling among trees, and along fences, particularly thorn hedges. By shifting the front beam, which turns on an axis, fromed of the front end of the main or stationary beam, this plow may be made to run after the near or off side animal of the team, as desired, thus without the least difficulty, enabling the plowman to perform good and straight work as close to the fences or trees as he desires.

"Any ordinary plow that is adapted to sward plowing, and even one that is considerably worn, will, when altered, by attaching the shifting beam, answer well for this purpose, as its use will not be required but little, compared with other plows; hence a plow considerably worn, will do as well as any. The shifting beam is attached to the stationary one, by framing into it, at right angles with it, a piece of timber of the same size, about ten inches long, with a semi-circular groove cut into it at the other end, so as to fit it to the stationary beam, to which it is attached by means of a piece of band iron, 3 inches wide, and $\frac{1}{4}$ inch in thickness, around the round part of the beam prepared for it. There are two braces of $\frac{1}{2}$ inch round iron, one above and the other below, attached by the same bolt, at the back end of the shifting beam, from which they extend back to the main beam near the handle, where they are again attached by a bolt, which is removed when the beam is to be shifted, and the braces are brought back to a line with the shifting beam, when the beam is turned to the opposite side, and the braces again bolted to their place."

Seed Potatoes.

EDS. CULTIVATOR—In communications in the November and January numbers of The Cultivator, on the subject of seed potatoes—the first by Mr. Murray, of Ohio, the other by Mr. Gold of Connecticut—it is claimed that those of the smallest size are equal if not superior to large ones, for seed. Now this is a subject, as Mr. Murray says, of great importance to the farmer; for if from small and indifferent seed, can be produced fair and large potatoes, as he remarks, it is time it was known.

There is no crop the farmer raises, that requires so much seed, or the seed of which costs so much to an acre, as potatoes—ranging from eight to twenty bushels—the difference being one quarter in large or small seed; or if it takes sixteen bushels, which is about the average of fair sized potatoes, to plant an acre, the same might be done with four very small ones, making a difference of twelve bushels—no small item at present prices, or fifty cents per bushel, which would be six dollars in favor of small seed in planting one acre.

Not doubting the correctness of either of your correspondent's statements, for I have heard similar ones, from respectable sources, I still am in doubt as to any good resulting from the practice; on the contrary, my experience and observation having led me to a different conclusion. For six years I have planted both large and small seed—sometimes from necessity, but have always carefully noted the difference, which has been uniformly and decidedly in favor of large seed.

I will specify two cases. In the spring of 1849, I planted two acres of potatoes, a portion of which was planted with small seed. Where I planted large seed, I had good potatoes, but where the small seed was planted I had very small, poor potatoes—the whole being new ground.

The past season I planted the same number of acres, but reserved a quarter of an acre, which I planted with small seed from the size of a walnut up to that of a hen's egg. The result was as all former crops had been with me, they were all small and worthless, besides being more affected by the rot than where large seed was used.

The difference in the vines, was perceptible as far as my potato patch could be seen. Those vines where I planted small seed, being not half the length of the others, besides having a slender and sickly appearance from the time they were out of the ground till they were harvested.

The ground had laid in pasture and meadow for forty years, never having been plowed before. I think the principle holds good of selecting the best of seed for raising potatoes, as much so as for corn, wheat or any crop raised on the farm.

Not doubting but good crops may have been raised, occasionally, from small seed, yet were I in want of seed, and had to buy, I would make three times the difference between large or small potatoes. J. VAN DENBURGH. *Jamesville, N. Y., February*, 1851.

Agricultural Reading---Root Culture, &c.

EDS. CULTIVATOR—There is no doubt that agricultural reading is a stimulus to agricultural enterprise. The success of one prompts others to effort; but in order to insure success, there must be an appreciation of the circumstances which were conducive to success in the undertakings of others. Difference of soil or of season, or both, may lead to entirely different results. Therefore a man in reading in your journal of large crops,

should not always calculate that his labors will be invariably rewarded with a bountiful harvest.

The Cultivator, from the first to the present volume, has come to me with the monthly contributions of its editors and correspondents, affording a rich entertainment to the mind—furnishing fresh stimulus to effort and improvement, and, I was about to say, I should as soon think of dispensing with the *plow* as The Cultivator. Why, they go as naturally together as the man with the plow; and as the plow needs his guidance and skill, so the man needs others' experience and wisdom to guide him.

Roots, Deep Plowing, &c.—I have always calculated to have a good supply of roots for winter—viz: ruta-baga, or else flat turneps; and have found them of great value. Six to eight hundred bushels of the latter to the acre can be raised with a little pains. I always take land that has been plowed the previous year, (say in corn or potatoes,) plow it *twice at least* the same season, before sowing. After last plowing, dress the land with 18 or 20 waggon-box loads of fine manure to the acre; drag it in thoroughly; with a light plow turn the surface into ridges two feet apart—make the top of the ridge flat and smooth, which even boys can do with expedition, when the land is in right condition, i. e., *mellow*. I sow about 25th July; not allowing the plants to be very near together—say from 4 to 8 inches, according to richness of soil. Two thorough dressings with cultivator and hoe will give the crop a good start of the weeds. The longer they remain in the ground without freezing solid, the sweeter the turnep and the longer it will keep; and the faster they grow, the fairer they are and the less wormy and less liable to be pithy. Manure makes the turnep crop. I have had them so large that the *fourth* turnep could not be got into the half-bushel—have had them weigh 7 lbs. and sound and sweet. The flat turnep is better for cows than the ruta-baga, because it does not give so strong a flavor to the milk, and it gives out no odor in the cellar.

Last season I was determined to try carrots in a small way. The ground was a moist loam, fertile, and with a slope to the south. A part I had cultivated with ruta-bagas two years in succession, (bad husbandry you may say,) because the first crop had not realized my expectations; but the second was from fair to inferior. After the middle of May, it was dressed with long manure (say 20 loads to the acre) and plowed once with Moore's plow—largest size—*driving the plow almost to the beam;* one man bearing his whole weight on it. Of course the horses had to do their part by the hardest. In order to destroy the weeds, the ground should have been plowed twice; but a backward, wet season, an unprecedented amount of work in repairs and building, and my unavoidable absence, prevented. So the weeds, having grown to such a height, could not be effectually buried with the plow. The ground was then thoroughly raked, smoothed, and cleared of every weed that we could find, and marked for the rows, one foot apart, calculating to have plants as near as one inch, and thin them to three or four inches apart; but was afterwards advised to let them all grow, and did, except as some were unavoidably pulled up in weeding—which was done by hand twice, using only the hoe. There was a third weeding; but the work was chiefly done at intervals. About the middle of November, the roots were dug. After trying successively the spade, dung-fork and pick, I resorted to the crow-bar; taking two rows at a time. One of us plunged the bar under the roots at one end of the row, prying them out, while the other grasped by the tops all that were loosened, drew them out and threw them on the ground in ranks.

This embraces substantially the whole process of culture. I enjoined upon the young man who assisted me, to keep an account of the bushels—having measured the capacity of both baskets with the half-bushel. The crop was 87 bushels, on ground (as measured with the ten foot pole) 44 ft. by 88 ft, allowing six inches outside the rows on the 4 sides of the piece—making 14¾ rods (within a fraction) and yielding at the rate of about 976 bushels per acre. This I call a good crop; but do not always expect as good, and intend to try again.

The question may be asked what are carrots good for? Cows when fed with them and corn fodder, well cured, (I always cut mine early and close to the ground,) give the sweetest milk and butter; rivaling in color, richness and flavor, that made on the sweetest grass. For horses, nothing is better—one of mine will eat them *sooner* than oats, grow fat on them and work too.

Last summer, in an effort to drain a wet piece of ground, I dug a ditch through a piece that was dry barren gravel; underneath which was a hard-pan. When the drain was finished, the land was plowed and sowed with buckwheat. Over the drain no manure was put; but the buckwheat was there as "heavy as it could stand," both in wet and dry ground, while on each side it was hardly a foot high. The season was very wet. Francis Whiting. *Great Barrington, Mass.*

The Cayuga Lake.

BY DAVID THOMAS.

The vapors that rise from large bodies of water, have great influence on the temperature, imparting a portion of their warmth to the cold winds that blow over them, and thus lessen the severity of winter. A correspondent suggests that from this cause, the mercury is sometimes 10 or 15 degrees lower in Wisconsin than on the opposite shore of *Lake Michigan*; and this difference may often account for the preservation or loss of the peach crop, when the blossom buds have been *started* untimely. I remember in 1816, when I traveled in the Western States, that the trees were in bearing on the southeastern shore of the *Ohio*, where the cold northwesters had been tempered by the vapors of that river, but none bore on the opposite side; and the same view explains why the district south of *Lake Ontario*, is so favorable to this fruit, while none succeed on its northern shore.

Another curious circumstance connected with the history of our lakes, is the effect of deep water in resisting the formation of ice. It has been said that the water which is chilled at the surface, descends and displaces the warmer portion below, till the temperature of the whole mass is greatly reduced, and *then freezing commences*. Certain it is however, that the shallow parts of our lake are the first to freeze.

From *Long Point*, 7 miles up the Cayuga Lake, *a line north of west*, separates the deep water on the south. Over the northern part, varying from 12 feet deep at the Bridge, to nearly 30 in the deepest places, the ice regularly forms in winter,—while south of that line where the water suddenly deepens, it generally continues open. When I came to reside in this county (46 years ago,) some of the *first settlers* said that opposite to Levana, the ice had never been more than "a thin skim," breaking up in the course of the day; and I am not aware that any exception to this rule had occurred previous to 1832,* when a number of persons passed over the ice from Aurora into Seneca county.

The *continuance* of cold as well as its *intensity*, is deserving of consideration. One severe night in the 3d month, produces much more ice than one equally cold in the beginning of winter. The descent of heavy snows into the lake, also prepares it for freezing.

In regard to the DEPTH of this lake:—More than fifty years ago, J. L. RICHARDSON of *Auburn*, (late First Judge of the county,) informed me by letter, that he had taken soundings opposite Levana, making its greatest depth 250 feet; and Dr. JOHN GRIDLEY (who has given me many other particulars,) stated that in 1826, he found the greatest depth of the lake opposite to Aurora, 282 feet. These measurements show a dip to the south of nearly 16 feet to the mile. It is well known that the *dip of the strata* is in that direction; but whether the Hamilton Group was excavated down to the limestone below, and that these measurements give the true dip, can be only conjectural, though it seems not improbable.

The State Geologist† of the Third District, has said that the greatest depth of this lake is 396 feet; but the name of his informant, the extent of examination, and the point in the lake, are not given.

Feeding Stock---Large and Small Animals, &c.

EDS. CULTIVATOR—I have lately been reading the State Agricultural Society's Transactions for 1849, which I only got some two weeks ago. To the discussions at Syracuse on Sheep farming, I have paid particular attention, and I am surprised to see men of intelligence, and men of science, prefer one breed of sheep to another because they are *small eaters*. I have been a feeder or keeper of sheep and cattle from my youth, and I never saw an animal pay for his keep, if a small eater. I mean everything I have on my farm to eat heartily, and then I think I have a fair chance for *pay*. The Saxon sheep with me, would not eat enough in cold weather; but would stand in the most sheltered places in the yards or under the sheds, while the Merinos, would be at their racks eating with a good appetite. Consequently, the Saxons would get poorer, while the Merinos were getting fat; and I long since discontinued keeping Saxons—they are not adapted to our climate, at least such Saxons as I have been acquainted with. They have not wool enough to keep them warm. Besides, their pelts are as thin as paper, while the right kind of Merinos have pelts almost thick enough to make water proof boots.

I notice, also, that those gentlemen, or some of them, think that their sheep eat according to their size. I have heard it said, ever since I can remember, that every animal but man, ate according to its size; and this was said, too, by those who were thought men of knowledge; but I am fully convinced that they were under a mistake. It is not easily tested in sheep, but in my stall-fed cattle I have tested it beyond a doubt, and I do say, (without fear of contradiction by practical men,) that I can fat a steer that will weigh 800 lbs. of beef, with as little feed as I can fat one that will not weigh over 500 lbs., and in nine cases out of ten the former will gain much faster than the latter. Everything depends on the natural propensity of the animal.

I am now fatting steers, as usual. I feed 42 this winter, and 110 wethers. Of my steers, 34 are fat, and sold to go off next Monday. They are 4 years old this coming spring, and very fine. The others are younger, and I shall keep them till summer. I shall soon buy in another lot to have fat in June, or early in July. By doing so I make immense quantities of manure and get a fair market price for my corn and hay. I buy and feed some oil-cake, besides.

I think there are not so many cattle as usual fatted in this section this winter, as many lost by them last year, and so far, what have been sold will scarcely pay their cost and keep, but the value of the manure is *incalculable*, especially on wheat growing farms.

EXPERIMENT IN FEEDING THE SEED OF PIGEON-WEED.—I made an experiment in feeding pigeon-weed seed, ground fine, to cattle. I selected two steers, one apparently a good feeder, the other rather hard in the hide with coarse hair, and, as I thought, the worst feeder I had. Those two I commenced feeding with four quarts of meal of Pigeon-weed, (alias red root, alias steinkrout,) per day. They eat it well, and gained. I increased it to six quarts per day; they still eat it, and did well. I thought it cost me nothing, and I increased it to eight quarts each per day; they still eat it for a few days, when both refused to eat the same morning. I removed it from their manger, and gave them a very little corn meal, which they eat in the course of the day.

The same day they both commenced purging, and continued so for two days. I offered them no meal of any kind until the purging stopped. I then commenced with four quarts of the pigeon-weed meal to each per day, and continued at that and no more, and they are now fat—both being about the same fatness. Therefore I would put it down for a certainty, that cattle can be fatted on pigeon-weed meal, with from four to six quarts per day; but that eight quarts *must not be fed*.

Now these two cattle were in a lot that I fed myself, during the whole time, with the exception of the week just past.

ERADICATION OF PIGEON-WEED.—By the by, I believe I have found out an easy way of exterminating that pest

* In that year, CHRISTOPHER MORGAN, senior, (father of our present Secretary of State,) made the following memorandum, which has been obligingly furnished by one of the family:

"February 27, 1832. The Cayuga Lake was frozen over on the 26th. Six persons crossed over from Aurora to the opposite side of the lake on foot. On the 27th, five persons chained across from the Stone Store House, and found the distance to be 268 chains and 36 links," *i. e.* equal to 3 miles and 113 rods. Previous to that time, some trigonometrical attempt had made it 4 miles and 80 rods!

† The late LARDNER VANUXEM.

of the wheat growing farmers of western New York, (pigeon-weed,) and that is by planting the ground with Indian corn two years in succession. It has succeeded on a 28 acre field of mine. But I have long known that a man had to follow up some experiments by more than one trial to make sure of the result. I am going to follow up this one, straight forward.

Shelter for Manure.—I notice a great deal is now said and much written, about keeping barn-yard manure under cover. Now this is what I have been experimenting upon for over 20 years, and I am fully of the opinion, after many trials, manure is not any the better for being kept under cover, and I think decidedly worse, if it is to be immediately applied to potatoes or Indian corn.* I do really wish that some thorough, working, practical men would test it fairly and give their opinion through The Cultivator. I know that men of practice are seldom writers, and more seldom speakers in public meetings; but I would rather have the opinion of one thorough, experienced farmer, than the opinion of ten theorists. I know scientific men, or some of them say, what may answer my farm, may not answer my neighbor's a mile off; but barn-yard manure answers for all land that is dry, in all places and all countries I ever saw or read of; and the farmer can always have plenty of it if he manages right; but he must not feed his cattle and sheep at straw stacks through the winter, with nothing else. Would you believe that in this *famous* county of Seneca, you may see fine thrifty steers, in the fall, that ten bushels of corn meal and less than a ton of hay would make fit for the butcher, or for New York or any other market, turned to a stack of straw, or more often a *heap* of straw, without any other shelter, there to do the best they can. I have seen them eating a tunnel through the stack of straw; and when the spring thaws come, some have had both cattle and sheep smothered.

Still some of those farmers, lay up money. If they are penurious in feeding their cattle and sheep, they are generally penurious in other things, and if their cattle or sheep bring them little, they feed them nothing that they could sell, and what they get they *keep*.

There are farmers, and those who own good land, too, that turn all their cattle and sheep on the highway through summer, and some will even buy young cattle in spring and turn them on the highway through summer, and after harvest, give them a run on their stubbles until winter sets in; then turn them to the straw stack or heap. A great many sheep are kept in the same way.

I am well aware that the most of your correspondents give a flattering account of the improvement of the farming community. I firmly believe that there is a great improvement within the last ten years, but still a great many farmers go on as I have represented, and yet lay up money. If their wheat should only average them 12 or 16 bushels per acre, they raise it with their own labor, and like their stock it is almost all gain. If I happen to tell some of them that they should feed their sheep something better than straw, they will say, that their sheep will compare favorably with mine, yet some of those who formerly fed nothing but straw to their cattle and sheep, have changed their course, and now have as fine cows and sheep as any man has, and it would be much to the credit of our country were every farmer to do so. John Johnston, *near Geneva, Feb.* 12, 1851.

P. S.—I have not yet finished threshing my last crop of wheat, but know that it will average over thirty bushels per acre. I have now a little over fifty acres on the ground, that I expect a large crop from. With the exception of six or eight acres, it is thoroughly tile-drained, and otherwise in good condition.

* There may be some points in connexion with this subject, that our correspondent has overlooked. For instance, it is sometimes the case that manure kept under cover is over heated, and much of the valuable part burned out. To settle the question fairly, the sheltered manure should be kept sufficiently moist and cool to prevent waste. If all the circumstances were properly attended to, we cannot doubt that the result of the experiment would be in favor of the manure which was protected from the air and rains. Eds.

Hussey's Reaping Machine.

Eds. Cultivator.—I observe in a late number of your journal, a statement from Mr. McCormick, with regard to his reaping machine; also one from another person respecting my reaping and mowing machine, which seem to have been in response to an inquiry made in a previous number of your paper. As that inquiry did not come under my observation in proper season, I was deprived of the advantage of making a parallel statement. Believing, with others, that I was not fairly represented in that correspondence; as the statement made for me by your correspondent did not refer to machines made by myself, or to such as are made with the improvements of latter years, I wish to make a few remarks.

Without troubling you with arguments, I will confine myself to stating a few facts. My reaping machine has been in successful use fifteen years. The patented improvements of latter years have increased its value as a reaper, and made it a mowing machine. It has driven from the field east of the Alleghany mountains every other reaper; for this fact, I will refer to all the prominent planters in lower Virginia, and the Shenandoah Valley, and of every other place where other reapers have had time to become known. Another striking fact is this: hundreds of mechanics in the western states are now infringing on my present patent right, in getting up machines to go by other names, while infringments on the other inventions for reaping are scarcely known. I will not boast of making a very large number of machines; the extent of my business has heretofore been to fill orders.

Another fact is this: by recent improvements my reaper has become a mowing machine. James Clark, of Lasalle, Ill., in a published letter, says he has cut 400 acres of grass with one of my machines in the last harvest—200 of meadow and 200 of prairie. I will take the liberty also to refer to Edward J. Eno, of Berlin, Sangamon county, and to Saml. Thomas, of Green county, Illinois, and to John Cockey and John Merryman, of Baltimore county, Md., and could refer to hundreds of other farmers for its merits as a mowing machine.

As regards the cutting of lodged grain, I will refer to matter already published, the signatures of responsible and disinterested farmers, instead of making any statement of my own.

Morris Sleight, of Dupage county, Ill., says—"We went into a piece of Black Sea wheat, a part of which was nearly flat on the ground, and lying in all directions; I had no idea it could be cut by any machine, but to my astonishment, Mr. Hussey's machine cut it as free and easy as if it had been standing up."

Rev. C. D. Eltinge, of Kane county, Ill., says "Mr. Hussey's machine worked in wheat very badly lodged, where the ground was rough, yet it cut it all clean."

When farmers have failed to cut their lodged grain with my reapers, it has generally been owing to a want of practical experience with the right kind of machines. I am not satisfied that the merits of my reaper should be judged of, and its character established by the operation of any machine not built at my manufactory in Baltimore. Many reapers are passed off for "Hussey's," to my great damage in several parts of the country.

One of my reaping and mowing machines, made in Baltimore, is now on board the St. Lawrence, on its way to the World's Fair in London. OBED HUSSEY. *Baltimore. Feb.* 14, 1851.

Not Giving Credit.

EDS. CULTIVATOR—In your February number, you charge us with publishing a series of articles under the head of "Village Lectures," "as original," in the American Agriculturist, which "first appeared in the English Agricultural Gazette."

If you will please to turn to page 340 of our November number, for 1850, where we commenced the publication of these "Lectures," you will find the following prefatory remarks:

"We insert from the London Agricultural Gazette, the following and *succeeding*" [this last word was not originally italicised] "Lectures on Scientific and Practical Agriculture, which from the simplicity of the language in which they are expressed, and their general utility to the farmer, we trust will be acceptable to a large portion of our readers."

If the above does not give ample credit,—and that of a highly flattering kind—to the source from which we took these lectures, then we do not know what credit is. But you will doubtless add, that this is not enough, and that credit should should be attached to each succeeding number copied. In this we entirely agree; but as we do not read the proofs of such things, we did not observe this omission till the January number of our paper was published. We then directed credit to be given to the Agricultural Gazette, in all subsequent numbers, at the bottom of the article; and the reason it was not done in our February number was, that the person who superintends the matter of the Agriculturist, was taken ill, and it was then left to a third party who was ignorant of our directions. No one can be more scrupulous in giving credit than we are; and although our own publication has been *general plunder* for the agricultural press of the country for the past nine years, and the above English or London Agricultural Gazette—in whose favor you here volunteered championship—has occasionally been one of the number; still we do not believe any periodical in the United States, is less open to a charge of not giving credit than ours; and whenever this has been omitted, it was without the knowledge, and totally contrary to the wishes of the editors.

Yet the Cultivator itself is not guiltless of the charge it prefers against us. If you will turn to volume 5th, page 171, you will find a continuation of the article on the "Manufacture of Cheese," by Mr. Alonzo L. Fish, which is taken from the N. Y. State Ag. Soc. Transactions, and appears there in the Cultivator as *original*, and without the slightest intimation whatever of its being copied from another work.* We could specify several other articles published in the Cultivator, from time to time as original, which were copied from other sources, but we do not think this worth while, as we have no doubt it was inadvertently done, and at the time escaped the attention of the editors; who we are happy to say, are more exact in giving credit for articles which they republish from other sources, than any other conductors of the press with which we are acquainted; and we will moreover add, that the Cultivator, like the Agriculturist, is general plunder throughout the Union, to the great disgrace of the conductors of agricultural and other periodicals and papers, who habitually pilfer as unscrupulously as if the property were all their own. EDITORS OF THE AMERICAN AGRICULTURIST. *New York, Feb.* 6, 1851.

"Wool and Gum."

EDS. CULTIVATOR—I noticed in the January number of your journal, an article under this head from a correspondent, suggested by your notice of sheep in Addison county, Vt.

In the breeding of sheep, I believe it is most advisable to pursue a medium course, in relation to the oily matter so natural to the wool of Merino sheep. I consider an excess or deficiency of this material, equally objectionable. There can much be said in favor of sheep that produce fleeces well supplied with oil of the right sort; but there seems to be no definite term to express the different kinds of oil, yolk or gum. I should choose sheep whose fleeces abound in what I should term transparent oil within the fleece, and flowing to the end of the staple, and there forming what might be called yolk, or gum, which by combining with dust, gives the surface of the wool a dark look. There can be no doubt that such oil and yolk, preserves the fleece from "dead ends," and the deleterious effects of stormy weather—that it greatly facilitates the growth of the wool, and much increases its strength, softness, and elasticity. And I believe there can be no doubt that manufacturers would prefer a fleece well supplied with the oil and yolk which I have described, after it was thoroughly washed, to a

* On turning to the article here referred to, we find it prefaced as follows: "(*Mr. Fish's Essay, concluded from page* 154)." On turning to the first part of the article, we find it introduced by the following words. "At the January meeting of the New-York State Agricultural, Society 1848, Mr. ALONZO L. FISH, of Litchfield, Herkimer county, received a premium of fifty dollars for an account of experiments made by him in the manufacture and management of cheese. Mr. F.'s valuable essay (as it may be called) is embodied in the elaborate report of the committee appointed by the society to examine the claims of competitors under this head, and will be found in the volume of *Transactions* for 1847, when published. We think the following extracts from Mr. Fish's remarks will be read with advantage," &c. EDS. CULT.

dry fleece with "dead ends," as they acknowledge that the wool from oily sheep, is manufactured with much less waste—is easier worked, and will make handsomer and more lasting cloth, than the wool of sheep quite destitute of oil. But there is another kind of gummy matter, quite different in its appearance and effects from the above. This may be observed in yellow, thick, pitchy particles within the fleece, and does not circulate freely to the end of the wool; consequently the fleece has a light colored surface with "dead ends;" and as the wool cannot be freed from this thick, adhesive gum by a common cold water wash, such fleeces will show a larger per cent of skrinkage in cleansing, than any others.

I dislike light colored Merinos, very much, and have never yet seen any with as fine and perfect wool as can be found in the best wooled varieties with a dark surface. I believe dark colored Merinos that are free from this thick, yellow gum within the fleece, are more highly appreciated by well informed wool-growers at the present time than formerly. I sell from 30 to 35 yearling bucks annually, and I find, that when other things are about evenly balanced, the best judges of sheep select those with a dark surface.

I send you samples of wool from my sheep that you may judge something of the character of the fleeces in regard to oil and yolk, as well as the complexion and fineness. I think I can show as even a flock of like number as there is in the country. You can judge of the uniformly fine quality of my wool from the fact that out of 1447 lbs. sorted at the White River Wool Depot, there were only nine pounds "No. 2," the remainder being classed in the three higher qualities.

The average weight of my last year's clip of wool, *exclusive* of any wethers or bucks' fleeces, except lambs, was 4 lbs. 6 oz. which brought me, through the agency of the Wool Depot, at the rate of $1.86 per fleece. The annual income of my flock by the sale of wool and surplus sheeep, (which included my bucks, wether lambs and my oldest and most objectionable ewes) was $3.17 per head.

I believe if wool-growers, whose sheep are not below a medium character, would select their most approved ewes and cross them with the very best bucks, with fine and heavy fleeces, they could, in a few years, obtain a flock that would average 4 lbs. or more, of clean washed wool that would sort as "fine" and "No. 1." EBNR. BRIDGE. *Pomfret, Vt., Feb.* 1851.

Keeping Fowls---Value of their Manure.

At a late agricultural discussion in this city, Mr. CHESTER MOSES, of Skaneateles, made some valuable remarks on poultry keeping. He stated that for several years past he had kept 600 to 700 fowls, and the last winter kept 900. His chief object is eggs, of which his fowls average about 100 each, annually. They are not confined, but are allowed to range at will. Their food is principally wheat screenings, with some corn, buckwheat, and animal offal. He is also particular to allow them plenty of oyster-shells, pounded, of which, especially during spring, or at the season when they lay most, they eat large quantities. The lime of the oyster-shells doubtless contributes to the formation of the shell of the egg, and perhaps assists, also, in the digestion of the food.

He keeps the Polish or Top-knot fowls, and the common country stock—prefers the former on account of their laying more steadily the first year, or two years—thinks there is not much difference in the black and spangled varieties of Top-knots. His general practice is not to keep fowls after the second year; as they do not lay so well after that age, they are regularly sold off, and the stock is kept up chiefly by purchase, though some chickens are raised; and it is only for the latter object that cocks are kept, Mr. M. being satisfied that they are of no benefit in the production of eggs for market.

Mr. MOSES considers the manure of his fowls of much importance, and takes care that it is all saved and applied to his crops. Under the building in which the fowls roost, is a cellar, into which all the manure is put. In spring, a few weeks before planting time, the manure is worked over and mixed with plaster—sometimes with plaster and ashes in equal proportions—using enough of these articles to make the manure so dry as to pulverize thoroughly.

This domestic guano, of which Mr. M. sometimes has the quantity of 300 bushels in a season, produces a powerful effect on the growth of Indian corn. His mode of applying it is, to drop a handful in each hill, which is then covered half an inch or more with earth, in order to prevent the seed from coming in immediate contact with the manure, which experience has shown would prevent its germination. Mr. M. stated that he had tried this compost in comparison with good hog manure, by applying each to corn in the same field and on similar soil. On one part, half a shovel full of hog manure was put in a hill, and on the other part, a handful of the hen manure compost. The crop was best where the latter was used, and the succeeding crop, (which was oats,) showed the same result in favor of the hen manure.

On another occasion he manured ten acres with the hen manure, which produced sixty bushels of corn to the acre. On a part of this piece, he used the manure only on alternate rows, leaving the intermediate rows with no application. The ears were "mere nubbins" on the rows that had no manure. He planted pumpkins on a row that had no manure, and on another row that had the proportion given to the rest of the field. The row which had no manure, produced no pumpkins of any value; the other produced fifty-one fair sized, good pumpkins.

Mr. M. stated that his son was engaged with another person in the poultry trade, and that in the winter of 1849–50, they sent between twenty and thirty tons to New-York and Boston.

INCREASE OF CHESS.—WM. LITTLE, in his address before the Mahoning county (O.) Agricultural Society, remarks that the increase of chess from seed, is much more rapid than farmers are generally aware of. He says, "if the wheat crop is injured or destroyed, the chess plant, which, if surrounded by strong and healthy wheat plants, would make but a small and feeble growth, spreads itself far and wide, and assumes the place of its unfortunate rival. The result of one seed thus accidentally dropped would astonish one. I have myself counted 78 stalks, each stalk averaging 20 seeds, making about 1560 seeds from one single plant; multiply this all over the field, and it is not hard to tell where all the chess comes from."

NOTES FOR THE MONTH.

Award of Premiums.

It appears by our books, that the following gentlemen are entitled to the Premiums we offered for the largest lists of subscribers to THE CULTIVATOR for 1851, received prior to the 15th of March:

1.	A. Cary, Fort Plain, N. Y.,	213 subs.	$50
2.	F. H. Fessenden, Brattleboro, Vt.,	109	40
3.	L. W. Curtis, Madison, N. Y.,	86	30
4.	John H. Reid, Fredericktown, N. B.,	62	20
5.	John J. Putnam, Amsterdam, N. Y.,	61	7.50
6.	H. Mills, Lowville, N. Y.,	61	7.50
7.	M. Davis, Jr., Lynchburg, Va.,	59	Each
8.	P. Steadman, Chicopee, Mass.,	54	
9.	A Cornell, Newtown, Pa.,	50	$5.00
10.	W. O. Buell, Perth, Can.,	50	
11.	O. F. Marshall, Wheeler, N. Y.,	49	
12.	Thos. M. Harris, Ritchie C. H. Va.,	46	
13.	James Wells, Johnstown, N. Y.,	46	
14.	George Clare, Schenectady, N. Y.	44	
15.	J. P. Mills, Galesville, N. Y.,	43	Each
16.	J. Miller, Schoharie, N. Y.,	41	
17.	W. L. Eaton, Nashua, N. H.,	41	
18.	S. C. Jackson, Minaville, N. Y.,	41	$3.00
19.	G. A. Hanchet, West Stockholm, N. Y.,	39	
20.	Jay Jackson, Chesterfield, N. H.,	39	
21.	W. Keese, Peru, N. Y.,	39	
22.	C. T. Dake, Kinsman, O.,	39	

All others who have sent us fifteen subscribers or more, with the pay, are entitled to a copy of Thomas' American Fruit Culturist, or any other dollar book they may select. [For list of Agricultural and Horticultural Books, see our last number, p. 120.]

ACKNOWLEDGMENTS.—Communications have been received since our last, from J. R. L., Deane, V. W. S., John Johnston, J. W. Gray, J. F. H., Obed Hussey, Francis Whiting, T. H. Collins, Henry Halsey, M. E. O., S. W. Thompson, Wm. P. Bedell, S., S. Van Denburgh, H. C. W., J. F. Gritman, Norton Case, G., A Subscriber, David Thomas, Prof. J. P. Norton, C. Reagles, Geo. Mansfield, Le Roy Mowry, One who intends to be a Farmer, O., J. T. C., W. O. Buel, S. L. Wattles, J. Cummings, H. Collins, A. T. James, Gurdon Evans, Wm. Bacon.

BOOKS, PAMPHLETS, &c., have been received as follows: Annual Report of the Trustees of the Mass. Lunatic Hospital at Worcester, from the Superintendent, Dr. GEO. CHANDLER.——Transactions of the Essex (Mass.) Ag. Scciety for 1850, from Hon. J. W. PROCTOR, President of the Society.——Fourth Annual Report of the General Agent of the Board of National Popular Education, from Hon. WM. SLADE.——Report of the Ag. Committee of the Ho. of Rep. of Iowa, from Hon. M. W. ROBINSON.——Address before the Ontario Ag. Society, by Prof. NORTON.——Annual Report of the Superintendent of the Onondaga Salt Springs, from Prof. GEO. H. COOK.——Scions of a Seedling apple and cherry, from WILSON DENNIS, Cedar Grove, Pa.——Transactions of the Norfolk (Mass.) Ag. Society for 1850, from Hon. B. V. FRENCH.——Portrait (steel engraving) of the imported blood horse "Consternation," from the owner, J. B. BURNETT, Esq., Syracuse.——Package of Seeds, from Hon. T. EWBANK, Com. Patent Office.

LIVE-STOCK DEPOT AT ALBANY.—It may benefit many of our readers, to know that very extensive accommodations for cattle have been completed by Mr. WOOLFORD, of this city. His stables, sheds and yards are commodious, and capable of affording ample room for three hundred head of fat cattle. His establishment is in Washington street, within a convenient distance of the railroads and river, and drovers with stock designed for New-York or Boston, will find this a good resting station, preparatory to a re-shipment at this place.

SOUTH-DOWN MUTTON.—We acknowledge the reception of a splendid saddle of South-Down mutton, from Mr. J. McD. MCINTYRE, of this city. It was a part of one of the four carcasses spoken of in another place as having been exhibited in market on the 22d February. Having subjected this mutton to the best test in our power, we have no hesitation in pronouncing it of the very first quality—really delicious. Indeed we do not see how any meat could be superior to it in flavor and quality. Why should not more of our farmers supply their tables with such a luxury? It could be provided with as little cost as beef or pork, and, certainly, it only needs to be known, to be preferred to either. These sheep were reared on the sand-plain, between this city and Schenectady—land which a few years since was deemed of little value; and they acquired their fatness chiefly by grass, hay, and turneps—having been fed with grain only the past winter.

FINE RABBITS.—Messrs. FRS. ROTCH and R. H. VAN RENSSELAER, of Morris, Otsego county, will please accept our thanks for specimens of their fancy rabbits. The specimens sent were designed for the table, and their destiny in that respect having been accomplished, we are able to pronounce them excellent. One of them was exhibited in market, on the 22d of February, at the stall of Mr. MCQUADE where it attracted much attention, being almost as remarkable for fatness as any of the "show cattle," or even the big bear which had been "fattened three years."

CATTLE POISONED BY LEAD.—A few years since, Mr. R. H. VAN RENSSELAER, of Morris, Otsego county, lost seven head of cattle, (mostly full blood short-horns,) whose death, it is believed, was caused by particles of lead taken into the stomach with their food. The hay on which they were fed, was all cut with Green's straw-cutter, which has a lead roller against which the knives cut. The action of the knives, constantly cuts away the lead, which falls with the fodder as it drops from the machine, and was taken up with it and fed to the stock. When the first animals died, the stomach was not examined; but while the two last were sick, it was suggested by a medical gentleman, that they might have been poisoned, and a *post mortem* examination showed that numerous particles of lead were attached to the inner coat of the first stomach, the organ being evidently inflamed from this cause. All the animals which died, were affected in a similar manner, and were probably diseased from the same cause. It may be said, in reference to this case, that no such consequences have been known to result from many other instances of the use of the straw-cutter mentioned. In explanation of this, Mr. V. R. states, that the fodder from his machine was fed very closely—that is, everything was daily swept from the floor, and given to the stock. In most other instances, probably, the finer portions of the fodder, with the dust, are left where the cutting is done, and the particles of lead, would, from their weight, be likely to remain with them.

BENEFITS OF RAILROADS.—A correspondent at Berlin, Erie county, Ohio, writes—"We in Ohio look forward with hope amounting to expectation, that the time is not far distant when we shall be able to reach the markets

of New York and Boston by means of railroad communication, at all times of the year. We shall then enjoy the benefit of that competition which stimulates the exertions of the seller, and gives satisfaction to the buyer. We have the elements of greatness among us—the skill and ability to produce agricultural articles equal in quality to any in the Union; all that is wanting is a market that will pay us. Every facility of transportation has a tendency to bring the distant near, and produce an equilibrium in advantages."

A Poultry Amateur.—We have before spoken of the beautiful collections of various kinds of fowls which have been exhibited by Mr. John Giles, of Providence, R. I., at the great poultry shows at Boston. In a late letter, Mr. G. informs us that he received by the steam ship Africa, a large addition to his former stock, among which is the famous Rouen duck. He says, "I have now over forty distinct and pure varieties of domestic and aquatic fowl, all of which I keep for my own amusement."

Morgan Horses for Washington County, N. Y.—We are informed that Le Roy Mowry, Esq., of Greenwhich, has lately purchased some fine Morgan stock; viz: a colt, foaled May 24th, 1849, purchased of William Arnold, Walpole, N. H., and a filly, foaled June 3d, 1848, purchased of Mr. Gates, of Walpole, (late one of the owners of *Gifford Morgan*, now dead.) Both these animals were by Gifford Morgan, and the filly, whose dam was by *Sherman Morgan*, is in foal to her sire. They are represented to possess the form, action, and other good qualities which distinguish the Morgans. Mr. Mowry informs us that he made some inquiries, when in New Hampshire, lately, in regard to the market value of geldings of this stock, when four or five years old, and found it was about $200, "while not a few have been sold as high as $500 or $600 each." This information may serve as an answer, in part, to many inquiries which we have received on this subject. Mr. Mowry deserves credit for the enterprise he has shown in bringing these animals to Washington county, where we think they will, if no accident befalls them, be of great public benefit.

Great Sales of Stock.—The sales of stock advertised in this number, by Messrs. Vail and Morris, are worthy the attention of those desirous of procuring animals of improved breeds. It will be seen that the sales of those gentlemen are so arranged that both may be attended without inconvenience—the one following very soon after the other. We presume these sales will attract many of the best stock-raisers from various parts of the country.

Wind-mill.—Mr. S. W. Thompson, of Pittstown, N. Y., wishes to obtain information as to the best plan of building a wind-mill, to be used for threshing grain, running a saw, &c. We have no knowledge of the one mentioned as having been patented by Israel Keys, of Putney, Vt. Will some of our correspondents tell us what is the best kind in use?

Drain-tiles.—A correspondent in Lucas county, Ohio, asks—"What would be the expense, upon a common brick-yard, of making drain-tiles?" Can any-one answer the question?

Cultivation of the Cranberry.—We have received a letter from Mr. F. B. Fancher, of Lansingburgh, enclosing some remarks from Mr. Sullivan Bates, of Bellingham, Mass., in regard to the cultivation of the cranberry. Mr. B. says the variety which he calls, the "Bell Cranberry" can be cultivated on upland, and that he knows of no other kind that can be naturalised to dry soil. He states that it is necessary that the soil should be quite poor, and that it is generally best to remove the sod or vegetable matter to reduce it to a proper state of sterility; but if the soil is so poor that grass and weeds do not grow on it, it may be plowed and harrowed and the plants set without any other preparation. The soil is marked in drills two to three feet apart, and the plants set six inches apart in the drill. They should be hoed the first season, and they will cover the ground in three years. He states the produce at 150 to 400 bushels to the acre. Mr. Fancher can supply plants.

Fat Cattle and Sheep.

The roan cattle, formerly owned by Mr. Edward Munson, of Sennett, Cayuga county, for which the first premium (in the class of stall-fed cattle) was awarded at the last State Fair, were brought to this city in February last, by Mr. Samuel McGraw of McGrawville, Cortland county, who purchased them several months since. They were sold to Messrs. P. & J. Fredenrich, who exhibited the beef at their stall in the Centre Market on the 22d of February. They were examined by many connoisseurs, both before and after they were slaughtered, and were deemed equal in fatness to any cattle that had ever been in our market. We learn from Mr. McG. that one of them was one-fourth, and the other three-fourths short-horn blood. The latter was the heaviest, and was an animal of fine symmetry, remarkable for the evenness and uniformity with which the frame was covered with flesh and fat. They would have been seven years old this spring. Their weight was as follows:

Live weight of the two,.....			5,333 lbs.
Dead weight,—No. 1.	quarters,	1,780 lbs.	
	tallow,..	215	
	hide,....	117	
	total,.....		2,112 lbs.
No. 2.	quarters,	1,674	
	tallow,..	225	
	hide,....	112	
	total,.....		2,011 lbs.

Mr. McGraw also sold a pair of fine cattle, four years and ten months old, the quarters of which weighed 1,270 and 1,168 lbs.—hide and tallow not ascertained. These were slaughtered by J. Battersby, and exhibited at his stall, corner of North Pearl and Patroon streets. Mr. B. had also the carcasses of two fat cows, purchased of Mr. McNeil, of Schoharie county, the quarters of which weighed 934, and 856 lbs.

Mr. James McQuade exhibited at his stall in the Centre Market, the beef of a fine ox, five years and ten months old, fattened by Mr. Hoag, Duanesburgh. The total weight of beef, hide, and tallow, was 1,905 lbs.

Mr. Wm. Castle, of Centre Market, exhibited the carcasses of four excellent wether sheep, two years and nine months old, bred and fattened by Mr. J. McD. McIntyre, of this city. Three of the sheep were a cross of the South-Down and Cotswold, and the other was a full blood South-Down. The dressed weight of the cross-breds, (the heads and feet being off,) was 130, 125, 92 lbs.; that of the full blood South-Down 90 lbs.

They were all very handsome sheep, and of very light bone and offal in proportion to the weight of carcass.

HEAVY COW.—Hon. GEO. GEDDES, of Onondaga county, recently slaughtered a cow, 11 years old, three-fourths short-horn and one-fourth Alderney breeds, which weighed, dressed, (quarters, hide and tallow,) 1,136 lbs. She had her first calf at the age of seventeen months, and has produced one every year since till 1849. She was dried of her milk twelve months before she was killed, and acquired her fatness principally by grass, having been fed on meal only three montns.

FAT OXEN.—A pair of superior fat oxen, belonging to JOHN H. BOYD, Esq., of Whitehall, passed through this city about the first of March last. They were coming seven years old, and weighed alive, as we were informed, 4,460 lbs. They were small-boned, and of good form and quality. We were not informed as to the breed, but should suppose they were a mixture of short-horn, Devon, and common stock.

PARKER & WHITE,

MANUFACTURERS of *Garden Implements and Farm Machines*, and growers and Importers of SEEDS and TREES, 8 and 10 Gerrish Block, Blackstone-st., Boston. April 1—tf.

Bone Dust or Bone-Manure.

600 Barrels of this best of manures for sale by the single or hundred barrels at New-York prices, by
THOMAS COULSON, Jr.
April 1—1t.* 590 Bowery, Albany.

Fortune's New Yellow Climbing Rose.

THE subscriber has now for sale at the *Asylum Hill Nursery, Hartford, Ct.*, a fine stock of Fortune's Yellow Rose. Strong plants, on their own roots, at $2 each. Smaller plants at $1 each.
Also a good collection of hardy Climbing, hardy Perpetual, and Moss Roses, and Ornamental Shrubs. GEO. AFFLECK.
Hartford, Ct. April 11, 1851—1t.

FRUIT TREES FOR SALE.

THE subscriber invites the attention of Nurserymen and Fruit Growers to his large stock of Apple, Early Golden Apricot, Frost Gage, and Cherry Trees. Isabella Grapevines, and Quince Bushes—with a large and general assortment of FRUIT TREES. All of which will be sold very low. Catalogues sent to all applications. CHARLES DUBOIS.
Fishkill Landing, April 1—1t.

TOBACCO SEED

OF the most approved variety for northern cultivation, will be sent by mail or express, to any person sending the money, in post-paid letters, at $3.00 per pound, for any quantity equal to a ¼ of a pound, or at the rate of 25 cents per ounce for a less quantity.
Upper Middletown, Ct., April 1—1t. R. S. WARNER.

Farmers', Gardeners' and Planters' Store.

A. G. Munn.] **A. G. MUNN & CO.** [Wm. Garnett.

530 Main-Street, four doors below third, at Wallace and Lithgow's old stand, Louisville, Ky. All kinds of Garden, Flower, Field and Grass-Seeds, and every variety of Agricultural and Horticultural Implements, constantly on hand, wholesale and retail.
☞ Also agents for the different Nurseries in the vicinity. Orders from abroad promptly attended to.
☞ Cash paid for Flax Seed, Mustard Seed, &c.
Fresh Osage Orange Seed for sale.

1,000 Bushels Kentucky Blue Grass, 500 bushels Kentucky Hemp Seed, 100 bushels Kentucky Pumpkin Seed, for sale, all crop of 1850. A. G. MUNN & Co. Louisville, Ky. April 1—1t.

Fruit Trees—Special Notice.

THE proprietor is desirous of disposing of a large proportion of the *Fruit Trees* in his Nurseries at Hawthorn Grove, Dorchester, Mass., with a view to improvements on the grounds the coming season.

The collection of *Pears, Cherries, Plums*, and other *Fruit*, embraces almost every approved sort of American or Foreign origin extant, and is scarcely surpassed in excellence or extent of variety.

Special Cultivation has been bestowed on the *Pear*, and many thousands of thrifty vigorous trees, are now ready for transplanting.

Extra Size Trees, with fruit buds, either on the quince or pear stock, and such as will soon commence bearing, can be supplied at moderate prices.

Also all the new varieties of *Pears, Cherries, Plums, Raspberries, Currants, Strawberries* and other fruits, and at rates less than is generally charged for novelties.

Scions for exportation and the home trade, can be had from fruit bearing trees, thereby ensuring correctness of nomenclature.

Selections, where desired, founded on the experience of many years, will be made by the proprietor, and which will seldom fail to please the correspondent.

ADDRESS—"The Superintendent of the Nurseries at Hawthorn Grove, Dorchester, Mass.," to the care of the subscriber,
MARSHALL P. WILDER, No. 2 Pearl-st., Boston.
N. B.—Grove Hall Coaches leave No. 11 Franklin-st. four times each day. April 1—1t.

Isabella Grapevines for Sale.

THE subscriber has a few thousand ISABELLA and OTHER GRAPEVINES, which he will sell on very moderate terms. Nurserymen and others, who may wish them in large quantities, can be supplied with a few thousand annually, by ordering them a year in advance. We have steamboat navigation, and other facilities for transportation to almost every part of the United States, and those who order roots may rely on receiving them without delay.
East Haddam, Ct., April 1—1t. ASA M. HOLT.

ISABELLA GRAPEVINES,

OF proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over 12 years, has conferred on the vineyards at Croton Point, are offered to the public.

Those who purchase, will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, (provided their localities are not too far north.) Dr. R. T. Underhill feels quite confident that he has so far meliorated the character and habits of the Grapevines in his vineyards and nurseries, by improved culture, pruning, &c., that they will generally ripen well, and produce good fruit, in most of the northern, and all the western, middle, and southern states.

From the experience of the past season, he is fully convinced that where his directions are strictly followed in planting the vineyard, and in its subsequent management, a good crop of Isabella Grapes may be ripened in a very unfavorable season. All communications, post-paid, addressed to R. T. UNDERHILL, M. D., Croton Point, Westchester Co., N. Y., will receive prompt attention.
April 1—1t.

DEVON BULL.

FOR sale, a full bred Devon Bull, 3 years old in July last, bred by H. N. Washbon, Otseso county, from the celebrated stock of Mr. Patterson, Baltimore. A choice animal, and a good stock getter. Price $100. J. W. COLLINS.
Smyrna, Chenango Co., N. Y. April 1—2t.

CAUTION.

THE subscribers, patentees of WHEELER'S PATENT HORSE POWERS, having noticed that an Agricultural Firm is advertising that Wheeler's Patent Horse Powers and Overshot Threshers are manufactured and sold by them, when in fact they have not obtained from us any liberty to use our patent, we hereby caution all persons that said Firm has no right to use our Patent, or to manufacture or sell said Horse Powers, and that a sale by them will confer no right upon the purchaser to use such Power.

Messrs. WHEELER, MELICK & Co., of Albany, and their agents, are the only persons authorised to make or sell Wheeler's Patent Horse Powers; and every such Power made or sold by them, or by any person having a License to do so, has upon one of the Cast Iron Semi-Circles, at each end of the Power, the words

"Wheeler's Patent—Wheeler, Melick & Co., Makers, Albany, N. Y."

A due attention to this fact will enable Purchasers to avoid imposition and fraud.

No person or firm in Albany, except WHEELER, MELICK & Co., is authorised to make or sell said Horse Powers.
April 1. A. & W. C. WHEELER, Patentees.

The Morgan Horse, Young Gifford.

THIS fine Horse, of the genuine Morgan breed, will stand the coming season, at the stable of the subscriber, in Farmington, Ct., for the use of Mares. Young Gifford was bred in Walpole, N. H., and was got by Old Gifford Morgan, his dam a pure Morgan. He will be four years old in May next, and is one of the best specimens of this distinguished breed. The Morgans are so well known and admired throughout New-England, that it is unnecessary to repeat their merits.

TERMS—$5 dollars for a single service. $8 the season. $10 insurance. WM. L. COWLES.
Farmington, Aprjl, 1851—2t.

MORSE'S GREY.

THIS celebrated Horse was awarded the first premium of $20, at the great New-York State Fair in Sept., 1850, where he was exhibited with a large number of his colts, and was judged the best stock-horse for "all work" in this country. Said horse has trotted his mile in two minutes and forty-six seconds. One of his colts took the first premium at the State Fair at Saratoga Springs; he was owned by Mr. Milliman, of Washington county, N. Y.—and in all places where this stock has been exhibited, they have carried off the best premiums. He is a beautiful dapple grey, 15¾ hands high, strongly and finely proportioned.

This Horse is a descendant of the "Dilligence horses" in Italy, and brought from there by Napoleon Bonaparte, into France. His sire was brought to Quebec, and was then sold to a gentleman by the name of McNit. of Washington county, N. Y. His dam was of the Messenger breed.

Said Horse was raised by Mr. J. Mills of Argyle, Washington county, N. Y. We challenge any horse in this State to show as fine stock as said Horse. His colts are justly celebrated for speed, bottom, and good temper, are eagerly sought after in the market, and command prices varying from $150, to $500, and $1000.

Terms $10 the season. Insurance to be agreed upon. Said Horse will stand at the stable of James Rice, three miles north of the village of Lansingburgh. All communications addressed to I. T. Grant, P. M., Junction, Rensselaer county, N. Y., will receive prompt attention. CALVIN MORSE,
April 1, 1851—3t. I. T. GRANT

Thorp, Smith & Hanchett,

Proprietors of the Syracuse Nurseries, Syracuse, N. Y.

CULTIVATORS of, and dealers in, all kinds of Fruit Trees, Ornamental Trees and Shrubs, Green-house Plants, Bulbous Roots, Seedlings, Hedge Plants, &c., offer for the Spring sales a very large stock of the best varieties of *Apple, Cherry and Peach Trees*; a choice selection of native and imported *Plum Trees*, and a splendid importation of *Pyramidal Pear Trees on Quince*, 5 to 7 feet high, 50 cents each, consisting of nearly one hundred of the most celebrated varieties, old and new. These trees have invariably given the most entire satisfaction, and are offered at a quite unusually low rate.

They have also for sale an extensive assortment of *Ornamental Trees, Shrubs, Vines, Green-house Plants, Evergreens and Plants for Bedding out*, among which are—

Deodar and Lebanon Cedars, 3 to 5 feet, price $2 each; Japan Cedars, Magnolias, Daphnes, Altheas, Honeysuckles, Dahlias. Roses of all classes, including *Fortune's China*, Phloxes, Petunias, Verbenas, Maurandias, Lophospermums. *Calestegia pupescens*, a new and beautiful climber, covered with a profusion of large double flowers, of a delicate rose color, from June till cold weather. Heliotropes, Geraniums, Salvias, Double Feverfews, Plumbagoes, Tree and Herbaceous Pæonies, Double Lichness, &c., &c., all of very superior quality and beauty.

☞ Persons favoring them with their orders, shall have no cause to complain of the quality of any articles sent them.

☞ Catalogues sent *gratis*, as usual, to all post-paying applicants.

N. B. T., S. & H., have formed a partnership under the firm of Thorp, Smith, Hanchett & Co., to take effect in May next, with Mr. A FAHNESTOCK, a skillful, practiced and intellegent nurseryman and propagator, who will superintend the management of the Greenhouse department, which they design shall constitute henceforth, an important feature in their business. By this arrangement they become joint proprietors with him in the "Augusta" Rose, an acquisition to the Floral world which is destined to create a marked sensation. It will be sent out in the spring of 1852. April 1, 1851—1t.

SENECA LAKE HIGHLAND NURSERIES.

E. C. FROST, Proprietor, Catharine, Chemung County, N. Y.

FRUIT Trees of all kinds, *Ornamental Trees and Shrubs, Grapevines, Hedge Plants*, Box for edging, *Strawberries, Dahlias, Green-house Plants, &c. &c.*, in large or small quantities. The Nursery and standard trees cover 40 acres.

The following varieties of Apples can be furnished:

The Wagener.—For this new variety the New-York State Agricultural Society awarded to Charles Lee, Esq., of Yates county, the place of its origin, the highest premium in 1847, and again in 1848; also procured a colored plate for a frontispiece to its published Transactions, and gave it a full description in part as follows: "*Texture*—Fine grained, crisp and juicy. *Flavor*—Rich, sprightly, vinous, sub-acid and delicious. *Season*—From October to May, and a prolific bearer." By referring to vol. 7th, page 60, of the Albany Cultivator, it will be seen that I have had the exclusive privilege of Mr. Lee's trees, and have taken scions from his, the original seedling tree, and also from others worked from it in the same neighborhood, so that those ordering will be sure of the genuine variety. Price of this variety 50 cents each, and scions furnished only in small quantities.

The Hawley or Douse.—For flavor, size and productiveness, this is believed to be the best fall apple known, either for dessert or market purposes. A description and outline can be seen in the Cultivator of April, 1847, from which we quote: "Of all the varieties of Apples which have lately been brought to notice, probably none is destined to become more and deservedly popular than the Hawley or Douse." Also in the Horticulturist of July, 1847; Hovey's Magazine of Dec. 1847, and the Genesee Farmer of May, 1848. The latter in describing it, adds—"The first time we saw it was at the State Fair at Auburn, in 1846, when it was exhibited by E. C. Frost, of Chemung county, as the Douse. His specimens were monstrous, and we well remember the commotion it created among the pomologists present, to all of whom it seemed unknown." Trees four years from the graft, 50 cents each. Scions by the dozen or hundred.

The Winter King, is a very showy and productive Apple, cultivated in this and Tompkins county, where it sells one shilling per bushel higher than that fine and well known variety, the Swaar. 25 cents.

Tompkins Apple.—Origin Tompkins county. An outline and description is given in the Horticulturist of February, 1848. Mr. Downing says—"A large, handsome, and productive autumn fruit, superior in flavor to the Porter. We commend it with confidence to the notice of amateurs, and collectors of good fruit." Season—October and November. 25 cents each.

In addition to the above four new varieties, among other standard sorts, are the following: Early Harvest, Large Sweet Bough, Summer Queen, Fall Pippin, Early Joe, Norton's Melon, Swaar, Baldwin, Northern Spy, Roxbury Russet, Ladies Sweeting, and Newtown Pippin. Scions—One or two dozen can be sent by mail with safety, to any part of the Union, and larger quantities by public conveyance.

Pears and Plums are not affected by the blight.

Eastern Fruit Growers can procure Peach Trees here, perfectly free from the *Yellows*, a disease to us unknown.

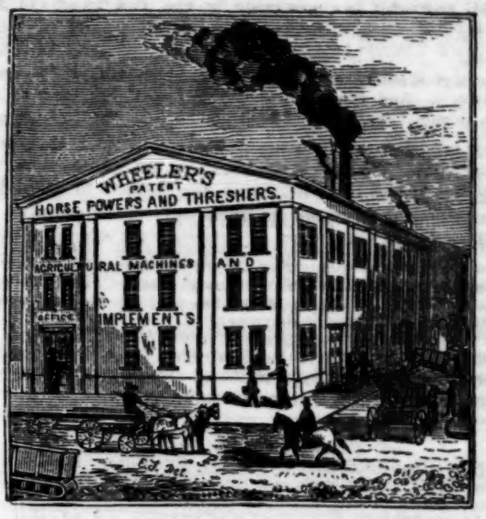
Trees carefully packed, and sent by public conveyance to any section of the United States and Canadas.

Being on the Chemung Railroad, which connects the New-York and Erie, with the Buffalo and Albany route at Elmira and Geneva, this location for railroad facilities, is surpassed by none.

Priced Catalogues furnished gratis to all post-paid applicants, containing an engraving and full description of the Wagener, and Hawley or Douse Apple.

Packages amounting to $10 and over, passing to or through New-York, will go free to the purchaser to that city, by the New-York and Erie Railroad. April 1—1t E. C. FROST.

New-York State Agricultural Works.



AGRICULTURAL MACHINES & IMPLEMENTS.

Wheeler, Melick & Co.

CONTINUE their manufactory at the corner of HAMILTON and LIBERTY STREETS, ALBANY, where they are prepared to fill all orders with despatch. Orders for

Wheeler's Patent Railway Chain Horse Powers

and OVERSHOT THRESHERS and SEPARATORS, will receive their prompt attention.

☞ The large and increasing demand for these Machines has induced the Proprietors to erect a New and Spacious Manufactory, and otherwise extend their means of promptly filling orders. Their Powers and Threshers have been sold in nearly every State in the Union, during the past year, and their superiority has been acknowledged by numerous testimonials, not only from Agricultural Societies but from persons who have used them. They have been awarded the First Premiums at all the principal Fairs where they have been exhibited in operation, including the Pennsylvania State Fair, the Provincial Fair of Upper Canada, and the Michigan and Ohio State Fairs, together with numerous County Exhibitions in the different States.

THE TWO HORSE MACHINE, with from three to five hands, will thresh from 125 to 200 bushels of Wheat per day, or twice that quantity of Oats.

The One Horse Machine will thresh rather more than half that quantity.

PRICE AT ALBANY:

For Two Horse Machines,.....	$145 00
For one Horse do, ...	$120 00

Machines will be shipped to any part of the United States or the Canadas, ☞ *and warranted to give satisfaction to the purchaser, or they may be returned within 60 days.*

The subscribers also manufacture and will furnish to order the most approved kinds of

Feed Cutters, Clover Hullers, Circular Saw Mills, &c. &c.

They will also furnish Horse Powers properly geared for driving Churns, elevating Grain, or other purposes to which horse power can be applied. WHEELER, MELICK & CO.

Corner of Hamilton and Liberty-streets, Albany, N. Y.

April 1, 1851.

Agricultural Books

OF all kinds, for sale at the Cultivator Office, 407 Broadway, Albany

AUBURN NURSERY.

THE proprietor has now ready for sale TEN THOUSAND Apple Trees, 4 and 5 years old, from 7 to 9 feet high, comprising all the leading Standard varieties propagated by himself, and warranted genuine.

Also a good assortment of Pears on their own roots, and on Quince for Dwarfs. And Cherries, Peaches, Apricots, Gooseberries, Currants, Raspberries, Ornamental Trees, Shrubs, Roses, &c., &c.

Also a quantity of Buckthorn for Hedges. All the above articles can be furnished of good quality, and as reasonable as at any Nursery in the State. Catalogues sent to all post-paid applicants.

Auburn, April 1, 1851—1t* S. S. GRAVES.

POUDRETTE.

THE Lodi Manufacturing Company offer their Poudrette for sale at their usual prices, viz: $1.50 per barrel, for any quantity over six barrels, delivered free of cartage on board of vessel, in the city of New-York. The article offered this year for sale, will have the advantage of being freshly manufactured.

☞ The company's office is 74 Cortland Street, New-York city, a few doors from the ferry. Address "THE LODI MANUFACTURING COMPANY, NEW-YORK," *post-paid*. April 1, 1851—3t.

EMERY & CO.'S
New-York State Agricultural Society's
FIRST PREMIUM
RAILROAD HORSE POWER,
AND
OVERSHOT THRESHER AND SEPARATOR.

THE attention of the farming public is solicited to the newly improved Railroad Horse Power, as now made by the subscribers. Also to their Over-Shot Spike Cylinder Threshers, with Vibrating and Revolving Separators.

Having had much experience in the sale and manufacture of Horse Powers and other Agricultural Implements; and being acquainted very extensively with the wants of the farmers of this country, as well as the character of most of the implements and machines now in use, we think we hazard nothing in pronouncing our latest improved Power far superior to any before made or sold by us, or with which we are acquainted.

At the late Fair of the New-York State Agricultural Society, held at Albany, their committee on Horse Powers unanimously awarded us the highest premium for the best Rail Road Horse Power, among the large number of the most popular and approved kinds of the day, which were on exhibition and in competition,—it being considered the most efficient and durable on the ground.

As the principal mechanical parts of its construction differ so materially from those mostly sold by us previously to the past season, as well as from all others now in use, we have thought it an object to the farmers, as well as for our own interest, to illustrate them by cuts and descriptions, as follows:

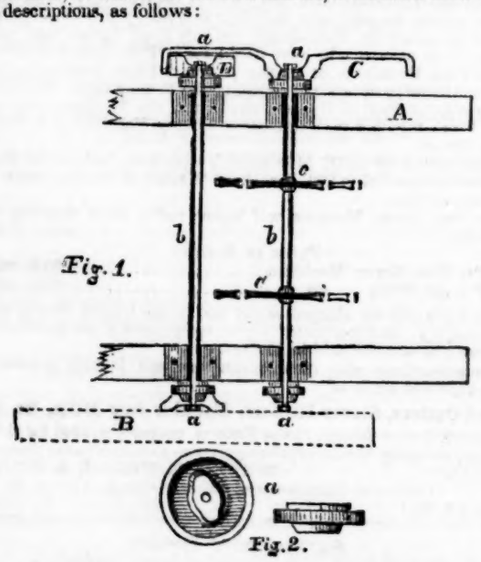


Fig. 1.

Fig. 2.

Fig. 1, represents the top view of the forward portion of the Power, (with the endless platform removed,) showing the side sills, A.A., which support the two large iron shafts, b.b. The coupling flanges, a.a.a.a., on the ends of the shafts, with nuts and screws for confining the wheels, &c. The CONVERGE wheel, C. confined on the end of the forward shaft, b. by means of ist concave hub, coupling screw and nut, a. The pinion, D. confined in like manner on the end of the other shaft, b. and so arranged as to work into the converge gear, C. The driving pulley, B. with concave hub, confined in like manner to the opposite end of the pinion shaft, b. on the opposite side of the Power; the two iron reels, c.c. confined on the forward shaft, inside the frame, near the sills.

Fig. 2, represents the side and edge view of the coupling flanges, a.a.a.a., or hub, which is fixed firmly and permanently to the ends of both shafts, b.b.

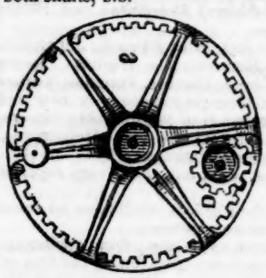


Fig. 3, represents the face view of the converge gear wheel, C and pinion, D. as working together when in use—which are confined on the shafts outside the frame of the power. One of the arms of the wheel has a plate projecting a little from its face, and calculated for receiving a wrist pin for driving a pitman, or connecting rod, often used, and necessary for propelling cross-cut saws, pumping water, churing butter, &c., where a vibratory motion is desired.

Fig. 4, represents the side view of one of the reels, c. two of which are confined upon the forward, shaft. The driving pulley, B. may be attached to either end of shafts, b.., as required for fast or slow motions.

The endless platform is composed of links connected by small shafts extending across the power, and through them far enough to receive small truck-wheels, which support the platform, and traverse on an iron track the whole circuit, except at the forward end of the power—when the small shafts are received into and supported by the forks of the reels, c. on the forward shaft, thereby giving it motion and power.

The diameter of the reels is such, that the ordinary walk of horses, or about two miles and a quarter per hour, give them about fifty-five revolutions per minute. The diameter of the pinion, D. being about one fourth the diameter of the converge gear, and consequently receive about two hundred and twenty motions per minute, and in the SAME DIRECTION—(which direction is found most convenient for all purposes, and indispensable for driving our Over Shot Threshing Machines, without crossing of bands.) The pinion working inside of the converge gear, allows more cogs to be in constant bearing, is stronger, and runs much lighter than spurr gearing, or rack and pinion. When arranged as in diagram, Fig. 1, sufficient speed is obtained with either horses or oxen, (which last are often used) for threshing grain, ginning cotton, sawing wood, grinding feed, grating apples, &c. &c.

When less motion is desired for other purposes, the band pulley, B. may be attached to either end of the reel shaft, and receive but fifty-five revolutions; and when still slower motion is required, as for driving Elevators, Hay Presses, and Paddle Wheels for Ferry Boats, or propelling boats in the lumber and wood business, on many of our rivers and lakes, the pinion may be confined upon the reel shaft, and converge wheel upon the other, which serves to reduce the motion to about fourteen revolutions per minute, with increased power in proportion to decreased motion, the travel of horses being the same in all cases.

The advantages of these arrangements are numerous, and plainly seen—one of which is removing all the gearing and wearing parts to the outside of the power, where it is free from dust. and dirt, &c., and where it may be boxed up, requiring little time or oil to keep them in the best possible running order.

The liability of breakage and wear, and slipping of links and pinions, as in the rack and pinion powers, (and most others) is wholly removed. In shipping them, the gears are taken off and packed in a box with other things.

Having sold a large number of the IMPROVED Machines the past harvest, all of which, having given entire satisfaction, and when used side by side with the most approved of other kinds, having been preferred, we do not hesitate to recommand and warrant them equal, if not superior, to any before made or sold by us, or of which we have any knowledge.

Our Thresher consists of a small spiked cylinder, about fifteen inches in diameter, and twenty-six inches long, with a substantial spiked concave above this cylinder, which is adjustable to the work to be done. The feeding table being level, allows the feeder to stand erect, and is little annoyed with dust and dirt—and no possibility of hard substances getting into the Thresher, to its injury.

We attach a vibrating or revolving separator to them, which serves to separate all the grain from the straw, and leave it with the fine chaff for fanning mill, while the straw is carried off for stacking.

Having heretofore been obliged to have a large portion of some parts of our work done by contract, we have felt the inconvenience and want of dependance to be placed upon the quality of materials and workmanship; we have now so extended our facilities, as to enable us to make all parts of all our own machines, and can now assure the public that none but the best work and stock will be offered by us.

For further particulars see Illustrated Catalogue, furnished gratis on application to EMERY & CO.

Proprietors of the Albany Agricultural Works, Warehouse and Seed Store, No. 369, 371, Broadway Albany, N. Y.

BLOODGOOD NURSERY,

Flushing, L. I., near New-York.

KING & RIPLEY, proprietors, offer for sale their usual large and fine stock of Fruit and Ornamental Trees, Evergreens, Flowering Shrubs, Grape Vines, Hedge Plants, Currant Bushes, Gooseberries, Raspberries, Strawberries, &c.

They can offer great inducements to persons wishing to start a Nursery or Fruit Orchard of any kind, or to ornament their grounds; and orders sent to them at 244 Pearl-street, New-York, will receive immediate attention, and the trees packed with great care for transportation. April 1—1t.

FRUIT AND SHADE TREES,

FOR sale at *Mount Ida Nursery, Troy, N. Y.*, a choice variety of FRUIT TREES, comprising Apples, Pears, Peaches, Plums, and Cherries, of the most approved kinds.

Currants, Gooseberries, Raspberries, Grapevines and Strawberries, of the choicest varieties.

Also a good variety of shade trees, consisting of Scotch Elm, English Sycamore, Linden, Horse Chestnut, Mountain Ash, Larch, Ash, Oak, &c.—Evergreen Privet and Buckthorn, for Hedges.

Rhubarb and Asparagus Plants, &c. Catalogues and other information can be had of the Nurseryman. JOSEPH CALDWELL.

Troy, April 1, 1851—1t.

New York Agricultural Warehouse and Seed Store.

A. B. ALLEN & CO., 189 and 191 Water street, N. Y., offer for sale the largest and most complete assortment of the latest and best improved Agricultural and Horticultural Implements, and Field and Garden Seeds in the United States, embracing every Implement, Machine or Seed desirable for the Farmer, Planter or Gardener. We would call particular attention to our large variety of most approved and very superior Plows, Harrows, Seed Sowers, Grain Drills, Corn Planters, Cultivators, Corn Shellers, Straw Cutters, Hay and Cotton Presses, Grain Mills, Garden and Fire Engines, Water Rams, Endless Chain Suction and Force Pumps, Horse Powers, Threshers, Saw Machines, Garden and Field Rollers, Sausage Cutters and Stuffers, Garden Shears, Knives, Saws, &c., Grain Cradles, Scythes, Snaths, Fan Mills, Forks, &c. &c. Wagons, Carts, Mills and Machinery of all kinds, either on hand or furnished at shortest notice. Our extensive manufactory gives us every advantage for making all articles to order and in the best manner possible.

GUANO, Poudrette, Plaster, Bone Dust, &c.

SEEDS.—Fresh Garden and Field Seeds, raised expressly for us. We shall recommend only Implements, Seeds and Manures of known utility and genuineness, and shall endeavor by the lowness of our prices, and attention to the wants of our customers, to meet all the just wants of the public.

Editors of the American Agriculturist, published monthly at $1 a year. A. B. ALLEN & CO.,

March 1—tf. 189 and 191 Water street, New York.

AGRICULTURAL WAREHOUSE,

193 *Front Street, New-York.*

THE Subscriber would call the attention of those purchasing, to his extensive assortment of *AGRICULTURAL IMPLEMENTS.*

"Highest Premium" Plows, which were awarded the highest premiums in 1846, 1847, 1848, 1849, and 1850.

Also, *Eagle Center-Draught*, and all Plows in general use.

Corn Shellers, with single and double hoppers.

Straw Cutters—Hoveys's, Green's, Sinclair's and others.

Horse Powers—Badger's Improved, and Bogardus' Patents.

Fan Mills—Grant's Premium, and Clow's Rotary Screw.

Threshing Machines—Corn and Cob Mills, Grist Mills, Cultivators, Harrows, Grain Cradles, Rakes, Scythes, Forks, &c., &c.

March 1—3t. JOHN MOORE.

DAIRY SALT.

THE attention of Dairymen is particularly called to a very superior article of STEAM REFINED ROCK SALT, prepared expressly for the Dairy at the City Steam Mills, Albany.

The salt now offered is a pure article, free from specks, white as snow and sparkling as crystal. There is no excuse for a deficiency of cleanliness, and the difference in the price of a pure, clean article, is of little consequence, and scarcely felt. Butter known to be made with this salt, commands a better price and will sell much more readily in this market. For sale by the bushel, or in bags of one peck each, by C. N. BEMENT,

March 1—3t. 11 Hudson street, Albany.

THE ORIGINAL BLACK-HAWK.

AT the earnest solicitation of many friends of this justly celebrated Morgan STALLION, the owner has been induced to let him remain in Vermont for one season more.

The superiority of this horse as a Stock-getter is becoming more and more highly appreciated, as his progeny are disseminated over the country.

For particulars in regard to pedigree and performances see large bills and previous volumes of the Cultivator.

Black Hawk will be kept for this season at the stable of the subscribers.

Terms $25 the season, payable in cash or satisfactory notes on demand, with interest.

Good pasturage will be afforded at 3 shillings per week—accidents and escapes at the risk of the owners.

D. & D. E. HILL, Agents.

Bridport, Vt., March 1—4t.

FIELD AND GARDEN SEEDS.

THE subscribers are receiving and have on hand a choice lot of Field Seeds, composed in part of

Black Sea Spring Wheat, both red and white chaff
Italian and Hedge row Spring Wheat.
Spring Rye and Barley.
Broom Corn Seed, superior quality.
Clover, large, small and white Dutch.
Red Top, northern and southern.
Timothy and Orchard Grass.
Field and Garden Peas.

Also a choice assortment of fresh GARDEN SEEDS, warranted true to their name. The attention of Gardeners is particularly called to the assortment. All the above, with a full assortment of FARM and GARDEN IMPLEMENTS, are afforded on liberal terms at wholesale or retail, at the *Albany Agricultural Warehouse and Seed Store*, 369 and 371 Broadway, Albany, N. Y.

Catalogues gratis on application. EMERY & CO.

Mar. 1, 1851.

To Fruit Growers.

THE Subscriber cultivates at his various Nurseries, and has for sale at his residence, *Eustis-Street*, Roxbury, Mass, all the choice varieties of the PEAR, APPLE, PLUM, CHERRY, PEACH, and other Fruit Trees. *Raspberries, Gooseberries, Currants, Grape Vines, Strawberries, Asparagus Roots, &c., &c.* Also several thousand Pear Trees on the Quince—one, two, three, four, and five years from the bud. Particular attention paid to the cultivation of the PEAR. Persons wishing extra sized trees, or trees on Quince stock in a bearing state, will please call at the Nurseries and make their own selection.

Buckthorn for Hedges—One, two and three years old. Ornamental Trees, Shrubs and Roses, Herbaceous Plants, Pæonies, &c.

Scions of all the varieties of the Pear of established reputation, and also of other fruits. The whole for sale at the market price.

SAMUEL WALKER,

Roxbury, March 1, 1851—2t. Roxbury, Mass.

Fruit Trees of Select Varieties,

For sale at the Nursery of J. J. THOMAS, *Macedon, Wayne co. N. Y.*

50,000 APPLE, Pear, Peach, Cherry, Plum and Apricot Trees, nearly all of large size, and *all propagated from bearing or proved trees*, including mainly the best STANDARD sorts, with such *new varieties* as have proved decidedly excellent—all furnished at moderate prices, and carefully packed for canal or railway conveyance. Communications, post paid, to be directed to

J. J. THOMAS, Macedon, Wayne co., N. Y.

☞ The proprietor wishing to alter a part of his grounds, now occupied with a fine growth of several thousand apple trees, will furnish a good selection of best sorts, of full size, at prices varying with quality, size, &c., from *ten to fifteen dollars per hundred*, with only actual cost of packing added. Mar. 1—2t.

TO FRIUT GROWERS AND NURSERYMEN.

ELLWANGER & BARRY solicit the attention of all Tree Planters, Nurserymen and Dealers, to their present stock, which is much larger and better than they have ever before had the pleasure of offering. It embraces among other things in large quantities,

Standard Fruit Trees—of all sorts.
Dwarf and Pyramidal Fruit Trees—for Gardens.
Gooseberries, Strawberries, Raspberries, Currants, &c.—all the newest and best kinds.
Ornamental Trees, Shrubs, Roses, &c.—including all new, rare, and desirable articles.
Buckthorn, Osage Orange, and other Hedge plants.
Stocks of all sorts—for Nurseries.
Green-house, Border and Bedding Plants.
Double Dahlias, &c.—in immense quantities.
Wholesale prices furnished when desired.

A new edition of the General Descriptive Catalogue is now ready, and will be sent gratis to those who apply *post paid*.

Mount Hope Garden and Nurseries, Rochester, N. Y., March 1, 1851—2t.

Fruit and Ornamental Trees,

For sale at the Nursery of H. Snyder, Kinderhook, Col. Co. N. Y.

THE proprietor of this establishment offers for sale, the coming spring, his usual assortment of FRUIT and ORNAMENTAL TREES, SHRUBS, VINES, ROSES, GREEN-HOUSE PLANTS, &c.

Most of the trees are of large, handsome and thrifty growth, and among them may be found many of the best sorts of Apples, Pears, Plums, Cherries, Peaches, &c., grown in this country.

The stock of Apples and Pears is finer than has been offered before at this establishment.

Also, Pears on Quince stocks—Cherries on Cerasus Mahaleq stocks—Apricots, Nectarines, Grape Vines, Gooseberries and Currants, at the lowest market prices.

Ornamental Trees can be furnished by the hundred, at very reasonable prices, and of various sizes, for ornamental grounds.

EVERGREENS.—The following can be furnished of various sizes: Norway Spruce, Balsam Fir, Arborvitea, Scotch Pine, Deodar Cedar, Cedar of Lebanon, Auricarias, Cryptomeria Japonica, Cupressus Thurifera, &c.

PLANTS FOR HEDGES.—Privet, Buckthorn, English Hawthorn, Locust, &c.

Seedlings of the following kinds—Sugar Maple, English Sycamore Maple, Horse Chestnut, Black Walnut, White Ash, European Mountain Ash.

A large stock of Apple Seedlings, suitable for root-grafting, at the lowest rate.

Catalogues will be forwarded to all applicants. Feb. 1, 1851—3t.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO. beg leave to call the attention of *Dealers* and *Planters* of trees, and the public in general, to their very large and complete stock of FRUIT AND ORNAMENTAL TREES, which they offer for sale the coming spring. The trees of these Nurseries are all grown on the premises, and propagated under the immediate supervision of Mr. SAUL, whose long connection with this establishment is some guarantee for the accuracy of the stock now offered for sale. It consists in part of over

20,000 Pear Trees, 5 to 8 feet high, and embracing all the leading Standard Varieties, as well as those recently introduced, of merit, either of American or Foreign origin.

20,000 Apple Trees, of *extra size*, 8 to 10 and 12 feet high, including every variety worthy of cultivation.

10,000 Plum Trees, 5 to 8 feet, of every known kind of reputation, as well as all the novelties of recent introduction.

10,000 Cherry Trees, 6 to 8 feet and over, among which will be found all the desirable and choice varieties.

A large stock of handsome, well grown trees, of Peach, Apricot, Nectarine and Quince, in every variety. Also,

Grapevines, Native and Foreign, Raspberries, Gooseberries and Currants, Strawberry plants and Esculent Roots, such as Asparagus, Rhubarb, Seakale, &c., of the most approved kinds.

Pear on Quince, Cherry on Mahaleb, and Apple on Paradise stocks—for Pyramids or Dwarfs for garden culture, and embraces all the kinds that succeed on those stocks.

Deciduous and Evergreen Ornamental Trees & Shrubs.

100,000 Deciduous and Evergreen Ornamental Trees, embracing all the well known kinds suitable for street planting, of *extra size*; such as Sugar and Silver Maple, Chinese Ailantus, Horse Chestnut, Catalpa, European and American Ash, Three Thorned Acacia, Kentucky Coffee Tree, Silver Abele Tree, American and European Basswood or Linden, American and European Elm in several varieties, &c. Also all the more rare and select, as well all the as well known kinds suitable for Arboretums, Lawn and door-yard planting, &c.; such as Deodar and Lebanon Cedars; Araucaria or Chilian Pine; Cryptomeria japonica; the different varieties of Pines, Firs, Spruces, Yews, Arborviteas, &c.

Weeping Trees.—New Weeping Ash, (Fraxinus lentiscifolia pendula,) the old Weeping Ash, Weeping Japanese Sophora, Weeping Elms, (of sorts,) Umbrella Headed Locust, Weeping Mountain Ash, Weeping Willow, Large Weeping Cherry, Weeping Birch, Weeping Beech, &c. &c.; together with every variety of rare Maple, Native and Foreign; Flowering Peach, Almond and Cherry; Chestnuts, Spanish and American; Fern and Copper Beech; Judas Tree, Larch, Gum Tree, Tulip Tree, Osage Orange, Paulownia, Mountain Ash, (American and European,) Magnolias of sorts, with many other things—including some 200 varieties of Shrubs, Vines, &c. Also a large collection of choice Roses, in great variety of Hybrid Perpetual, Hybrid China, Hybrid Province, Hybrid Damask, Bourbon, Tea, China, Noisette, and Prairie, and other Climbing Roses, for which see Catalogue, a new edition of which is just issued, and will be forwarded to all post paid applicants.

A large quantity of Arborvitæ for Screens, and Buckthorn Osage Orange, and other Hedge plants.

The above will be sold on as liberal terms as similar stock can be purchased elsewhere. For further particulars we would again refer to priced Catalouge. A liberal discount will be made to persons who buy to sell again, and extensive planters on their own account.

Newburgh, March 1, 1851—2t.

Prince's

Linnæan Botanic Gardens and Nurseries, Flushing, N. Y.

WM. R. PRINCE & CO., successors of Wm. Prince, and sole proprietors of his great collection, offer the largest and choicest assortment of Fruit and Ornamental Trees and Plants to be found in America, and will transmit Descriptive Catalogues to all post-paid applicants desirous to purchase. The choicest varieties of Fruits, which are scarce elsewhere, are here extensively cultivated, and applicants will not be disappointed. Every desirable Fruit enumerated by Downing, Manning, Kenrick, Hovey, and in the Catalogues of Europe, can be supplied. Of the finest varieties of Pears, 50,000 trees can be supplied, of which 15,000 are of bearing age, on both the Pear and the Quince. Purchasers are solicited to visit the establishment and judge for themselves, but the same attention will be paid to the selection for all distant correspondents. The prices are as low and mostly lower than trees of equal quality can be obtained elsewhere. And above five hundred varieties of Fruit Trees, and a much larger number of Ornamental Trees, can be supplied, that cannot be obtained elsewhere in the Union, except in a few casual instances. Every premium for Roses and Strawberries was awarded to us by the Long Island Horticultural Society.

A wholesale Catalogue will be sent to all Venders.

The transportation to the west is now moderate, and the Agent's Receipt will be sent to each purchaser, which will prevent the impossibility of loss. Cash or a reference can be sent with the order, by those who are strangers to us. March 1, 1851—2.t

The American Live Stock Insurance Company,

At Vincennes, Indiana.

CHARTER unlimited. Granted January 2, 1850. ☞Capital $50.000'☜ For the Insurance of *HORSES, MULES, PRIZE BULLS, SHEEP AND CATTLE*, of every description, against the combined risks of *Fire, Water, Accidents and Disease.*

Losses paid in 30 days after proof of death.

Directors.—Joseph G. Bowman, Hiram Decker, M. D., Isaac Moss, George D. Hay, John Wise, Alvin W. Tracy, Hon. Abner T. Ellis, Abm. Smith, Hon Thomas Bishop. Joseph G. Bowman, *President.* B. S. Whitney, *Secretary.* Wm. Burtch, *Trasurer.*

Aug. 1, 1850—1yr. B. P. JOHNSON, Agent, Albany.

Fruit Scions for 1851.

THE subscriber will furnish Scions of the celebrated fruits of western New York, of the different varieties mentioned below:

Northern Spy.	Swaar.
Norton's Melon.	Westfield Seek-no-further.
Early Joe.	Rambo.
Baldwin.	Esopus Spitzenburgh.
Ribston Pippin.	Roxbury Russet.
Red Canada.	Autumn Strawberry.
Gravenstien.	Green Sweeting.
Red Astrachan.	Munon Sweeting.
Lowel.	Talman Sweeting.
Porter.	Summer Rose.
Fameuse.	Wagener.
St. Lawrence.	Early Harvest.
Yellow Bell-flewor.	Hawley or Dowse.

I will pack and send either by mail or Express at one dollar per hundred, orders post paid.

Virgalieu, Osband's Summer, Oswego Beurre, Onondaga or Swan's Orange, Pear Scions at 8s. per dozen.

N. B. In all cases where it is possible, I will send specimens of the Northern Spy apple. JAMES H. WATT.

Feb. 1—2t.

Agricultural Warehouse and Seed Store,

Quincy Hall, over the Market, Boston.

THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL and HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

Of PLOWS—we have the greatest variety of kinds and sizes.

Improved Sod Plows, for flat furrows—improved Scotch Plows, for lapped furrows—improved Stubble Plows, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton, and Rice Plows.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others. Patent Corn Shellers, with and without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes. Horse Powers, Threshing Machines, thermometer Churns, Robbins' patent Centrifugal Churn, Cylinder Churn, Dash Churn, Corn Planters, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post paid.

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., March 1, 1851—2t.

United States Agricultural Warehouse and Seed Store, No. 197 Water-street, New-York.

JOHN MAYHER & Co.

THE Subscribers, Manufacturers of, and Dealers in, Agricultural Implements, would inform the public that they keep constantly on hand, and offer sale, the largest and most complete assortment of Agricultural and Horticultural Implements, Field and Garden Seeds, in the United States, among which may be found the following:

Plows—Upwards of 150 different patterns and sizes, adapted to all the different kinds of soil and modes of culture, among which may be found the genuine Eagle Improved Plow, which has taken the Premium wherever exhibited or tested.

Harrows—Of all kinds and sizes.

Corn Planters—Different kinds and sizes, to work by man or horse.

Seed Sowers—A great variety, that will plant all kinds of grain and seed at any required distance.

Cultivators—A large and varied assortment.

Water Rams—Self-acting, of various sizes, with all the late improvements.

Chain Pumps—Complete, or in parts, in small or large quantities, to suit purchasers.

Grain Mills—French Burr Stone and Cast Iron, from $5 to $250, for man, horse or steam power.

Corn and Cob Crushers—Of different sizes.

Straw Cutters—Of all the approved patterns and sizes, for hay, straw, corn, and corn stalks.

Corn Shellers—Several new kinds, together with all the old and most popular styles in use.

Garden and Fire Engine—Of recent invention, and the best article offered to the public.

Carts and Wagons—Of any style and size, furnished at the shortest notice.

Spring Wheat—Black Sea, and all other varieties of the best and most approved kinds Spring Seed Wheat.

Spring Rye and Barley—in any quantity.

Blue Grass Seed—Just received fresh from Kentucky, suitable for Lawns, and early and late pastures.

Clover Seed—White and Red, a superior article.

Timothy Seed—New and perfectly free from foul seed.

Garden Seeds—An extensive stock, selected with the utmost care, expressly for the American market.

Foreign Seeds—Of the best quality, and latest importation.

Grass Seeds—Ray, Lucerne and White Dutch Clover Seed, just imported.

Bird Seeds—Canary, Hemp, Rape and Millett.

Guano—Genuine Peruvian and Patagonian of the best quality.

Bone Dust—A prime article, in barrels or bags.

Plaster—Ground, in barrels.

Poudrette—At the manufacturers' lowest prices.

JOHN MATHER & Co.

March 1—tf. 197 Water Street, New-York.

Great Books for Farmers, Gardeners and Horticulturists,

And a Rare Chance for Agents to make Money.

JOHN P. JEWETT & COMPANY, Publishers, Nos. 17 and 19 CORNHILL, BOSTON, take pleasure in announcing to the intelligent Farmers, Gardeners and Horticulturists of the United States, that they have at length completed their valuable collection of works on Agriculture, and its kindred sciences, and that the two last of the series are now in the hands of the stereotypers, and will be ready for delivery to subscribers and others on or before the first day of March. The two volumes now in press are, first,

Breck's Book of Flowers,

By Joseph Breck, Esq., of Brighton,

For many years editor and publisher of the "New-England Farmer," and one of the most distinguished Florists in America. This volume contains the results of the practical experience of a man of taste and science, and is, without doubt, the most thorough and reliable book, on the cultivation of Flowers and the laying out of Flower Gardens, to be found in any language; it is emphatically the Ladies' and Gentlemen's complete Floral Vade Mecum. This book will be in 12mo. form, containing about 336 pages, fine cloth binding, and we have determined to sell it at 75 CENTS, to bring it within the means of all, and to ensure a large sale, as it is a book which every lover of Flowers must own.

The second in the series is—

The Kitchen Gardener's Text Book,

By one of the most distinguished Gardeners of New-Jersey. This is truly a practical work, avoiding useless, and to the masses, unmeaning technicalities, the author handles his subjects with the skill of a thoroughly versed, common-sense practitioner. With the aid of this volume the merest Tyro may rapidly advance through the various stages of Horticultural knowledge, to complete success. A simple and practical and cheap work on this subject has long been needed. The price of this book will be 50 CENTS,—12mo., 216 pages, handsomely bound in cloth.

The third book is—

A Treatise on Hot-Houses,

By Robert B. Leuchars, Garden Architect.

This work, by Mr. Leuchars, who is one of the most distinguished among the many Scotch Gardeners of America, is a practical treatise on the

Construction, Heating and Ventilation of Hot-Houses,

including CONSERVATORIES, GREEN-HOUSES, GRAPERIES, and other Kinds of

HORTICULTURAL STRUCTURES,

with practical directions for their management in regard to LIGHT, HEAT and AIR. Illustrated with more than SEVENTY ENGRAVINGS. This is the first and only work of the kind ever published in this country or in Europe, and is recommended very highly by professors Silliman and Dana of Yale College, and by many other scientific gentlemen. Price one dollar. It is a very learned work, and an invaluable one to any person who owns, or who intends to erect, either of the structures on which it so ably treats.

The fourth book is—

MR. COLE'S GREAT WORK ON

THE DISEASES OF ANIMALS,

OR THE AMERICAN VETERINARIAN,

30,000 copies of which have already been sold, and the sale of which continues in a manner almost without a precedent. To every man who owns a horse, a cow, a pig, or even a hen, this work, by Mr. Cole, is of more value than ten times its cost.

The lives of many valuable animals have already been saved by following Mr. Cole's plain directions for their treatment when sick.—This is the cheapest work of the kind ever published in America, being but 50 CENTS at retail, and we do not believe that any farmer would willingly be without it, if placed within his reach.

The fifth book is—

MR. COLE'S OTHER VALUABLE WORK,

THE AMERICAN FRUIT BOOK,

Or, Fruits and Fruit Trees of America,

18,000 of which have been published in less than two years.

This beautiful and thorough work is illustrated by over 200 engravings. of Apples, Pears, Peaches, Plums, Cherries, Grapes, Raspberries, Gooseberries, Currants, &c. &c., and the various Fruit Trees of our country; also cuts representing the various modes of training vines and the different styles of grafting, budding, pruning, &c. It is a work which, for accuracy of description and reliability, has never been exceeded, if equalled, and contains more than twice the amount of matter of any other Fruit Book published in America at the same price, viz: 50 CENTS. We could fill a volume with the recommendations of Mr. Coles's two books, which we have received from the most eminent Farmers and Horticulturists of New-England, the Middle States and the great West.

A Word now to Agents.

We are now prepared to offer to capable, responsible, and energetic Book Agents, a chance for making money, such as seldom occurs. With the above five works, an agent of tact or ability could hardly fail upon a spot so barren that he could not dispose of one or more of these works, and in many cases would sell one of each: and in populous districts, a large number of copies could be sold daily. We intend to district out the New-England States, mostly into counties. Also, the States of New-York, Pennsylvania, New-Jersey, Ohio, and the Western States, we should prefer to dispose of, to some one individual in each state, for him to district out into sub-agencies.

The books will be ready for delivery by the 1st of March, and it is important that the various Counties and States should be disposed of before that time. A cash capital of $30 to $50 will be needed by every agent for a County, and a much larger sum by a State agent.

Address, post-paid, the Publishers, JOHN P. JEWETT & Co.,
March 1—2t. 17 & 19 Cornhill, Boston.

NEW AND VALUABLE PLANTS,

For the Nursery, Garden and Pleasure Grounds.

B. M. WATSON offers for sale at the OLD COLONY NURSERIES, PLYMOUTH, MASS., a very complete assortment of plants, including all those of recent introduction, consisting in part of *Pear*, Quince, Paradise, Mahaleb, Plum, Cherry and Apple stocks, at the lowest rates.

Young Trees, 3 to 5 feet high, in great variety, mostly at from $5 to $12 dollars per 100, of the finest deciduous sorts, for nurseries or young plantations, and *Evergreens* from seed, from 1 to 1½ feet.

Dwarf Pear, Apple, Cherry, Plum, Apricot and Nectarine. Trees in a bearing state, or nearly so, of the finest and best established sorts, at the usual rates.

Standard Trees of the same. Diana Grape, $1.

Scions of the best Apples, $1 per 100. Pears and other Fruit and Ornamental Trees and Shrubs, $2 per 100. In large quantities at low rates.

Currants, including all the new sorts. Raspberries, Gooseberries in great variety, and Rhubarb, at $1.50 per dozen—$10 per 100.

Strawberries, in 20 fine varieties, mostly at $1 per 100. Burr's New Pine, $2, Iowa, $2, Jenney's Seedling, $1.50 per 100. Richardson's Seedlings, (fine) 50 cents per dozen.

English Walnut, Spanish Chestnut, Filberts and other nuts. Black English Mulberry, (the best,) Medlars, &c.

Ornamental Trees, including many new and interesting varieties of Arabia, Æsculus, Ash, Beech, Birch, Cherry, Chestnut, Elm, Hawthorn, (12 var.) Laburnum, Linden, Magnolia, Maple, Oak, Plane, Willow, and many other genera.

Shrubs, including many fine sorts of Althea, Arbutus, Berberis, Calycanthus, Cheonanthus, Cotoneaster, Cytissus, Daphne, Deutzia, Hydrangea, Halesia, Pyrus, Ligustrum, Lonicera, Peonia, Philadelphus, Ribes, Spirea, Lilac, Tamarix, Viburnum, Xylosteum, and among others,

Forsythia viridissima,	Spirea prunifolia, fl. pl.
Wiegela rosea,	—— Lindleyana,
Lonicera Ledebourii,	—— Douglassi,
Chimonanthus fragrans	—— Reevesii,
—— grandiflorus,	Ribes albida,
Lilacs, 8 fine sorts,	—— sanguinea, fl. pl.
	Pyrus, double crimson.

Evergreen Shrubs, consisting of Arbutus, Andromeda, Box, Euonymus, Gaultheria, Holly, Laurel, Juniper, Ledum, Menzeizii, Rhododendron, 8 sorts, Vaccinium vitis idæa, Irish Yews, Evergreen Oak, Mahonia aquifolium, (excellent.)

Rare Conifers, including Deodar Cedars, one-half to three feet; Cedar of Lebanon, Araucaria imbricata; *Abies* Douglassi, Menziezii and Cephilonica; *Pinus* Austriaca, cembra, excelsia, gerardiana, halepensis, insignis, Lambertiania, Morinda, Mughus; *Picea* nobilis, picta, pindrow, spectabilis; *Thuya* filiformis, Chinensis; Cryptomeria japonica, Salisburia adiantifolia.

Vines and Climbers—Wistaria, (sorts,) Joy, Virginia Creeper, Aristolochia, *Clematis* azurea, flammula, Sieboldtii and others, Periploca, Climbing Roses, Honeysuckles, &c.

Calestegia Pubescens.—This new and beautiful climber, introduced recently from China by Mr. Fortune, proves perfectly hardy in New-England, having stood *the winter of* 1850 *in the grounds here*, without any protection whatever. Trained to a single pillar, say 10 feet in height, it is a very striking and beautiful object from the middle of June till cold weather, during which time it is covered with a profusion of its large double flowers of a delicate rose color. It is very ornamental, planted in patches like the Verbenas, and is very effective in young plantations, trailing prettily on the surface, and running among the lower branches of trees in a very picturesque manner. It is therefore particularly suited for Cemeteries and Public Gardens. Strong plants in pots, $1 per pair—$4 per dozen. Tubers for 100 plants, $5,—for 50 plants, $3, sent by mail or express at any time, with directions for propagation and culture.

Prairie and other Running Roses, Perpetual, Bourbon, Tea and China Roses, in great variety.

For Bedding out.—Chrysanthemums, (30 new varieties) and Dahlias, $2 per dozen—Verbenas, including Reine de Jour, Iphigenia, St. Margaret, Robinson's Defiance, and 20 other sorts, $1.50 per dozen—Fuchsias, a fine collection; Carnations and Calestegia pubescens, $4 per dozen—Scarlet and other Geraniums, Salvias, Veronica Lindleyana, Lobelias. Double white Feverfew; Heliotropes Souvenir de Leige, Voltairianum and intermedia, $2.50 per dozen. Ipomeas; Maurandia alba, rosea and Barclayana; Cobea, Lophospermum, Physanthes alba, &c., $2.50 per dozen.—Plumbago Larpentae, 50 cents—Cestrum aurantiacum, 50 cents—Asclepias curassavica, 25 cents.

*** Priced lists sent post paid, on application. ☞ Carriage of all packages paid to Boston. Plymouth, Mass., March 1, 1851—tf.

Devon Stock for Sale.

TWO fine Devon Cows, 3 and 6 years old; also a fine yearling Bull and Heifer.

The subscriber offers the above for sale, of pure blood, and bred from the best stock in the country FRANCIS W. COWLES.
Farmington, Conn. Nov. 23, 1850. Dec. 1—6t.

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GREAT SALE OF SUPERIOR THOROUGH *Bred Short-horn Cattle.*

THE subscriber, having more stock than can be sustained on his farm, will offer at public auction about 30 head of his Improved Short-horn Cattle, consisting of Bulls, Cows, Heifers, and Heifer and Bull Calves, on Thursday, the 26th day of June next, at his farm, 2½ miles from this city.

It is known to breeders of improved stock in this country, and in Canada, that the proprietor of this herd, during the past twelve years, has, through the medium of importations from England, and selections from the best herds in this country, spared no expense to rear a Herd of Cattle, from which superior animals could safely be drawn, for improvement and cross upon other herds.

His importations have been derived from that eminent breeder, the late Thomas Bates, Esq., of Kirkleavington, Yorkshire, England, which herd it is well known, has recently been disposed of at public sale by his administrators, and dispersed in many hands, and can no longer be resorted to as a whole for improvement. The announcement of that sale created great interest, and all Short-horn breeders in England seemed emulous to secure one or more of the animals to mingle with the blood of their herds; and at the day of sale there was found assembled, the largest audience ever before witnessed on a similar occasion, numbering, it is said, from 4 to 5,000 persons; among them were the most eminent breeders in England, and several from other countries. Some of the animals bringing prices which seemed incredible to many.

In the herd now offered for sale, will be included the imported Bull Duke of Wellington, and the premium Bull Meteor. These are Bates Bulls, and their reputation as stock get ers, is too well known to need any comments. I am, however, authorised to say by Lewis F. Allen, Esq., of Black Rock, one of the most prominent breeders in this country, and who has had ample means for forming a judgment, "that in no instance, to his knowledge, have these two bulls been bred to Short-horn cows of other herds previously imported into the United States, but what the produce were superior in general qualities to such herds." The most of the stock which is now offered for sale, has been bred from these two bulls; and the proprietor having a young bull more remotely connected with the portion of the herd which he retains, (say about 11 in number,) he can now spare these two valuable Bulls. There will be in the stock offered for sale, six young Bulls, from 8 months to about 2 years old, in addition to the two above named; and the remainder of the stock will be composed of Cows, (most of them possessing extraordinary milking qualities,) Heifers, and Heifer Calves.

It is believed that no Herd of Short-horns has ever been offered for sale in this country, exhibiting more of the valuable combinations of qualities which contribute to make up perfect animals. A Catalogue containing the pedigrees of these animals will be ready for delivery at an early period, in which the terms of sale will be stated. A credit will be given from 6 to 18 months. Gentlemen are invited to examine the herd at their convenience. GEO. VAIL.

Troy, N. Y., April 1, 1851—3t.

New York Agricultural Warehouse and Seed Store.

A. B. ALLEN & CO., 189 and 191 Water street, New York.

Fresh Garden Seeds, a large assortment of the various kinds. Also, Field Seeds.

Lawn and other grasses.

Horticultural and Garden Implements. The best and greatest variety for sale in the United States. Plows, Spades, Hoes, &c. &c.

Guano, Bone Dust, Poudrette, and other fertilizers

Prompt attention given to all orders by letter or otherwise.

March 1—tf.

DOMESTIC ANIMALS AT AUCTION.

THE postponed yearly sale of FULL BRED SHORT-HORNS AND IMPROVED DAIRY STOCK, consisting of about fifty head, will come off at my farm on Tuesday, June 24th, 1851, at 12 o'clock, M. I shall dispose of all the improved Dairy Stock, which is composed of the finest Short-horn, with a slight cross of Amsterdam Dutch, which some writers say was part of the original ingredient which composed the improved Short-horns.

I am now breeding the Short-horns, Devons and Ayrshires, each separately and pure, which, owing to the limits of my farm, make it necessary to confine myself to those three breeds. By the awards of the State Agricultural Society, the American Institute, and my own County Society, (with the exception of last year, when I was not a competitor at either,) it will fully appear that I have been a very successful exhibitor. The cow which won the FIRST PRIZE as a milker, at the American Institute last year, was bred by me, and composed of the above alluded to Dairy Stock. Several of the Bulls got by Lamartine will be of the most appropriate age for efficient service the coming season. All Cows and Heifers old enough, will be warranted in calf at the day of sale, by my Imported Bull "Lord Eryholme," or my celebrated Bull "Lamartine."

I own two thorough bred Devon Bulls; one the celebrated old Major, the other, one and a half years old, imported by me from Devonshire. One of the above animals will be sold—which, I have not as yet determined.

A full Catalogue, with the pedigree of each animal, will be published in due time, with minute description of sale, &c.

I also have a number of Suffolk Sows, in pig to my imported Boar, most of the progeny of which will be old enough to dispose of on that day.

I also have about 20 South Down Ewes, most of which I imported from the flock of Jonas Webb, and now in lamb to my imported Buck "Babraham." Some of their Buck Lambs will be offered at auction on that day.

This sale will not only offer an opportunity to obtain Stock from my previous Herd, but will also enable persons to procure calves from my imported Bull, lambs from my imported Ram, and pigs from my imported Boar—all of which animals were recently selected by me in person, when in England.

The mode of warranting the Cows and Heifers in calf, is this: in case they prove not to be so, it shall be optional with the purchaser, on his *certificate of that fact*, either to receive from me $25, (say twenty-five dollars,) or to send the cow to my farm, and I will keep her the proper time (free of expense) to have her got in calf to either of my Bulls, which he shall choose. I will give $25 for any heifer calf from either of the Cows or Heifers sold at the sale, delivered on my farm, at two weeks old.

Stock purchased to be sent a distance, will be delivered on shipboard or railroad in the city of New-York, free of risk or expense to the purchaser.

Persons living at the south, in a climate to which it would not be well that stock should be transported, at that hot season of the year, may let such animals as they may purchase, remain with me until the proper season, and I will have them well taken care of, and charge only a reasonable price for their keep. One of my objects in breeding improved domestic animals, is to assist in distributing them throughout the Union, deeming it one, if not the most important feature to promote profit to the cultivator of the soil, and to benefit the consuming country at large.

All communications through the Post, please pre-pay, and I will pre-pay their answers, and also a Catalogue if required. Catalogues will be to be had at all the principal Agricultural Warehouses and offices of the principal Agricultural Journals, on and after the 1st day of June next. Persons wishing to view the stock at any time will find my superintendant, Mr. Wilkinson, to give them the desired information when I am not at home.

Dated this 4th day of March, 1851, at Mount Fordham, Westchester County, eight miles from the City of New-York, by Harlem Railroad. April 1.—3t L. G. MORRIS.

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